

**From:** Byers, Harris <Harris.Byers@stantec.com>  
**Sent:** Monday, August 23, 2021 3:00 PM  
**To:** Beggs, Tauren R - DNR  
**Cc:** kmcdaniel@manitowoc.org; nwitte@gklaw.com; ategen@manitowoc.org; 'Van Der Kloot, James'  
**Subject:** RE: Supplemental Phase II ESA - Underground Storage Tank Removal and Soil Sampling

Thanks for the clarification. Will get this taken care of.

**Harris Byers, Ph.D.**

Sr. Brownfields Project Manager  
Contaminant Hydrogeologist / Urban Geochemist  
Direct: 414 581-6476  
Harris.Byers@stantec.com

Stantec  
12075 Corporate Parkway Suite 200  
Mequon WI 53092-2649



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**From:** Beggs, Tauren R - DNR <[Tauren.Beggs@wisconsin.gov](mailto:Tauren.Beggs@wisconsin.gov)>  
**Sent:** Monday, August 23, 2021 2:59 PM  
**To:** Byers, Harris <[Harris.Byers@stantec.com](mailto:Harris.Byers@stantec.com)>  
**Cc:** [kmcdaniel@manitowoc.org](mailto:kmcdaniel@manitowoc.org); [nwritte@gklaw.com](mailto:nwritte@gklaw.com); [ategen@manitowoc.org](mailto:ategen@manitowoc.org); 'Van Der Kloot, James' <[vanderkloot.james@epa.gov](mailto:vanderkloot.james@epa.gov)>  
**Subject:** RE: Supplemental Phase II ESA - Underground Storage Tank Removal and Soil Sampling

Hi Harris,

There will need to be follow up with DATCP to get the storage tank database updated. Looks like UST 1 (Tank ID: 414569) appears to be correct that it was closed/removed since it was previously removed. The other three USTs indicate they were Closed/Removed as of 6/18/2001, which appears to need to be updated:

- UST 2 (Tank ID: 414570) still remains as closed in place
- UST 3 (Tank ID: 414571) is now removed
- UST 4 (Tank ID: 414688) is now removed

The DATCP Facility ID for the site is 112099. The status change can be recorded to DATCP by filling out and submitting the DATCP Tank Registration form (TR-WM-137) for each tank, which can be found on DATCP's website at the following link:

[https://datcp.wi.gov/Pages/Programs\\_Services/PetroleumHazStorageTanksForms.aspx](https://datcp.wi.gov/Pages/Programs_Services/PetroleumHazStorageTanksForms.aspx).

Sorry this took a little bit to get back to you on this.

If you have any questions, please let me know.

Regards,

**We are committed to service excellence.**

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

**Tauren R. Beggs**

Phone: (920) 510-3472

[Tauren.Beggs@wisconsin.gov](mailto:Tauren.Beggs@wisconsin.gov) (preferred contact method during work at home)

---

**From:** Byers, Harris <[Harris.Byers@stantec.com](mailto:Harris.Byers@stantec.com)>

**Sent:** Monday, August 9, 2021 4:46 PM

**To:** [ategen@manitowoc.org](mailto:ategen@manitowoc.org); 'Van Der Kloot, James' <[vanderkloot.james@epa.gov](mailto:vanderkloot.james@epa.gov)>; Beggs, Tauren R - DNR <[Tauren.Beggs@wisconsin.gov](mailto:Tauren.Beggs@wisconsin.gov)>

**Cc:** [kmcdaniel@manitowoc.org](mailto:kmcdaniel@manitowoc.org); [nwitte@gklaw.com](mailto:nwitte@gklaw.com)

**Subject:** Supplemental Phase II ESA - Underground Storage Tank Removal and Soil Sampling

Team:

Attached is a supplemental Phase II ESA summarizing soil quality following removal of two intact former fuel oil underground storage tanks (UST) at the former Mirro facility located at 1512 Washington Street in Manitowoc.

In summary, residual subsurface petroleum impacts were previously investigated under the Closed BRRTS Case No. 03-36-274209; however, the USTs could not be removed at the time of tank closure due to building structural limitations. Building demolition completed by the City allowed the intact tanks to be removed, as described herein.

Jim – this represents the final piece of work to be completed under the CDA's USEPA Brownfield Site-Specific Assessment Grant (Cooperative Agreement number BF-00E02380).

Tauren – please let me know if you want the tank removal company to file paperwork with DATCP, or if the attached will suffice for administrative purposes as we have done previously.

Ned/Kathleen – please forward as appropriately to others involved in the project.

Sincerely,

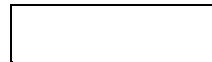
**Harris Byers, Ph.D.**

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Stantec Consulting Services Inc.  
12075 Corporate Parkway, Suite 200 Mequon WI 53092

August 1, 2021  
File: 193706270

**Attention: Mr. Adam Tegen**  
Community Development Director  
City of Manitowoc  
900 Quay Street  
Manitowoc, WI 54220

Dear Mr. Tegen,

**Reference: Supplemental Phase II ESA - Underground Storage Tank Removal and Soil Sampling**

**Former Mirro Facility**  
**1512 Washington Street**  
**Manitowoc, Wisconsin**  
**OPEN BRRTS ID: 02-36-545108**  
**CLOSED BRRTS ID: 03-36-274209 (Closed LUST)**  
**USEPA ACRES ID: 169132**

As a continuance of the Stantec (2020a) *Phase II Environmental Site Assessment (ESA)* and as recommended in the Stantec (2020b) *Supplemental Underground Storage Tank Assessment*, Stantec has completed a supplemental Phase II ESA to characterize soil beneath two former fuel oil underground storage tanks (USTs) following tank removal at the Brownfield property located at 1512 Washington Street in Manitowoc, Wisconsin (herein referred to as the "Property"). The location of the Property is illustrated on **Figure 1**. This work was completed using funds provided through a site-specific Brownfield assessment grant awarded to the Community Development Authority of the City of Manitowoc (CDA) by the United States Environmental Protection Agency (USEPA) in 2018 under cooperative agreement number BF-00E02380. The USEPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) ID for the Property is 169132. The Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) closed case number associated with the USTs is 03-36-274209. The open BRRTS case number associated with sitewide impacts from a variety of petroleum and hazardous substances is 02-36-545108.

## BACKGROUND

As described in the Stantec (2016) Phase I ESA, closure documentation associated with BRRTS Case No. 03-36-274209 suggested four former fuel oil underground storage tanks (USTs; estimated 4,400 gallons each) were abandoned in place by the previous owner in 2001 by filling each tank with a cementitious slurry as the former industrial buildings prevented complete UST removal at the time of tank closure. However, as subsequently noted by Stantec (2020b) and illustrated on Figure 2, UST 1 no longer remained onsite, and UST 2 was previously cut open and appeared to be backfilled with general site fill (brick, debris) and trace amounts of imported gravel. UST 3 and UST 4 remained onsite as described in Stantec (2016) and each tank was approximately five feet in diameter and 30 feet long. Removal of UST 3 and UST 4 was warranted to facilitate soil sampling beneath the tanks.

August 1, 2021

Mr. Adam Tegen

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Reference: Supplemental Phase II ESA - Underground Storage Tank Removal and Soil Sampling  
Former Mirro Facility; 1512 Washington Street; Manitowoc, Wisconsin

## UST REMOVAL

Field activities were completed using methods described in the Stantec (2019) *Site Specific Sampling and Analysis Plan* (SSSAP). Diggers Hotline was contacted to locate and mark the locations of registered utilities in the project area. This investigation was completed using Standard Operating Procedures (SOPs) presented in the Stantec (2015) *Quality Assurance Project Plan* (QAPP) and associated addenda, as summarized below. Photographic documentation of field activities is provided in **Attachment A**.

On June 8, 2021, UST 3 and UST 4 were removed from the Property from a common excavation by Horizon Construction and Exploration, LLC (Horizon). The top of each UST was cut off and the inert cementitious materials used to initially abandon the tanks in place were removed and transported offsite to the Badgerland Aggregates, LLC Q-Pit (Badgerland Aggregates) in Two Rivers, Wisconsin. Disposal records are provided in **Attachment B**. The empty steel tanks were removed and transported offsite for recycling at Sadoff Iron & Metal of Manitowoc, Wisconsin. Scrap metal disposal documentation is included as **Attachment C**. The excavation was backfilled with clean, imported granular fill sourced from Badgerland Aggregates, and the excavation rough-graded to meet Occupational Safety and Health Administration (OSHA) slope requirements. Imported fill documentation is included as **Attachment B**.

Please note that the remnants of UST 2 were not removed as part of this investigation.

## WELL ABANDONMENT

As noted in Stantec (2020a), monitoring well MW-25 was installed approximately one-foot east of the western end of UST 3 in March 2019. MW-25 was abandoned pursuant to NR 141 Wisconsin Administrative Code (WAC) on June 8, 2021 in conjunction with UST removal activities. The well abandonment form for MW-25 is included as **Attachment D**.

## SOIL SAMPLING

As illustrated on **Figure 2**, six samples of underlying soil were taken directly from the sidewalls and base of the excavation. No odors or visual staining indicative of petroleum or hazardous substance impacts were noted in these soil samples.

Soil samples were collected and preserved in accordance with SOP No. 02 and Table 3 of the QAPP and associated addenda (Stantec, 2015). Samples were placed in laboratory-supplied containers per SOP No. 02, preserved as appropriate, stored on ice, and submitted under chain-of-custody procedures to Eurofins TestAmerica (Eurofins; Chicago, Illinois), a State of Wisconsin-certified laboratory for analysis. Soil sample analyses included volatile organic compounds (VOCs; SW846 Method 8260B) and polycyclic aromatic hydrocarbons (PAHs; SW846 Method 8270D). Detected constituents are compared to Chapter NR 720 Wisconsin Administrative Code (WAC) residual contaminant levels (RCLs) published by WDNR in December 2018 on **Table 1**. The laboratory report is provided in **Attachment E**.

## RESULTS

As summarized on Table 1, no petroleum constituents were detected in soil at concentrations greater than applicable industrial direct contact RCLs. Select PAH compounds were detected at concentrations exceeding applicable non-industrial direct contact RCLs and/or soil to groundwater RCLs in the soil samples taken from

August 1, 2021

Mr. Adam Tegen

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Reference: Supplemental Phase II ESA - Underground Storage Tank Removal and Soil Sampling  
Former Mirro Facility; 1512 Washington Street; Manitowoc, Wisconsin

beneath UST 3 and UST 4 ("South Tank Base" and "North Tank Base", respectively) and in the soil sample collected from the east sidewall ("East Wall"). Four VOC constituents were also detected in the east sidewall soil sample; however, detected VOCs were less than Chapter NR 720 WAC RCLs.

Detected constituents at concentrations greater than the laboratory detection limit, but less than the laboratory reporting limit are qualified with a "J" flag in the laboratory report (Attachment E) and Table 1. In addition, internal laboratory quality assurance/quality control thresholds were met. VOCs were not detected in the trip blank. Although absence of a field duplicate sample represents a small data gap, the quality objectives stipulated in the Stantec (2015) QAPP are generally met, and the data are suitable for use in this Phase II ESA.

## CONCLUSIONS

This Phase II ESA identified residual petroleum impacts to soil similar to those identified previously during tank closure. Stantec recommends that a copy of this letter report be submitted to the WDNR for review and determination if supplemental sampling is warranted under the open BRRTS Case No. 02-36-545108 to further define the extents and magnitude of residual petroleum impacts associated with UST 3 and UST 4.

As additional funds are secured, Stantec recommends removing the remnants of UST 2 and sampling beneath the former tank to determine if residual impacts remain.

Regards,

**STANTEC CONSULTING SERVICES INC.**



Whitney M. Cull, EIT  
Assistant Brownfields Project Manager  
Tel: 262 – 219 – 4740  
Email: [Whitney.Cull@Stantec.com](mailto:Whitney.Cull@Stantec.com)

**STANTEC CONSULTING SERVICES INC.**



Richard J. Binder, P.G., CPG  
QA/QC Manager  
[Rick.Binder@stantec.com](mailto:Rick.Binder@stantec.com)

## ENCLOSURES

Figures

Tables

Attachments

Attachment A – Photographic Documentation

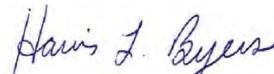
Attachment B – Badgerland Aggregates Disposal and Imported Fill Tickets

Attachment C – Sadoff Iron & Metal Disposal Documentation

Attachment D – MW-25 Well Abandonment Form

Attachment E – Laboratory Report

**STANTEC CONSULTING SERVICES INC.**



Harris L. Byers, Ph.D.  
Sr. Brownfields Project Manager  
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August 1, 2021

Mr. Adam Tegen

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Reference: Supplemental Phase II ESA - Underground Storage Tank Removal and Soil Sampling  
Former Mirro Facility; 1512 Washington Street; Manitowoc, Wisconsin

## REFERENCES

Stantec, 2016, Phase I ESA for 1512 Washington Street, Manitowoc, Wisconsin, June 28, 2016.

Stantec, 2019. Site-Specific Sampling and Analysis Plan for a Chapter NR 716 WAC Site Investigation, 1512 Washington Street, Manitowoc, Wisconsin, January 9, 2019.

Stantec, 2015. Quality Assurance Project Plan, Implementation of U.S. EPA Assessment Grants for Petroleum and Hazardous Substance Brownfields, City of Manitowoc, Wisconsin, U.S. EPA Cooperative Agreement No. BF-00E01529-0, August 19, 2015. *\*Note: Applicable to U.S. EPA Cooperative Agreement No. BF-00E02380 per the January 7, 2019 and subsequent updates.*

Stantec, 2020. Phase II ESA, 1512 Washington Street, Manitowoc, Wisconsin, March 19, 2020.

Stantec, 2020. Supplemental Underground Storage Tank Assessment, Former Mirro Facility, 1512 Washington Street, Manitowoc, Wisconsin, May 18, 2020.

## LIMITATIONS

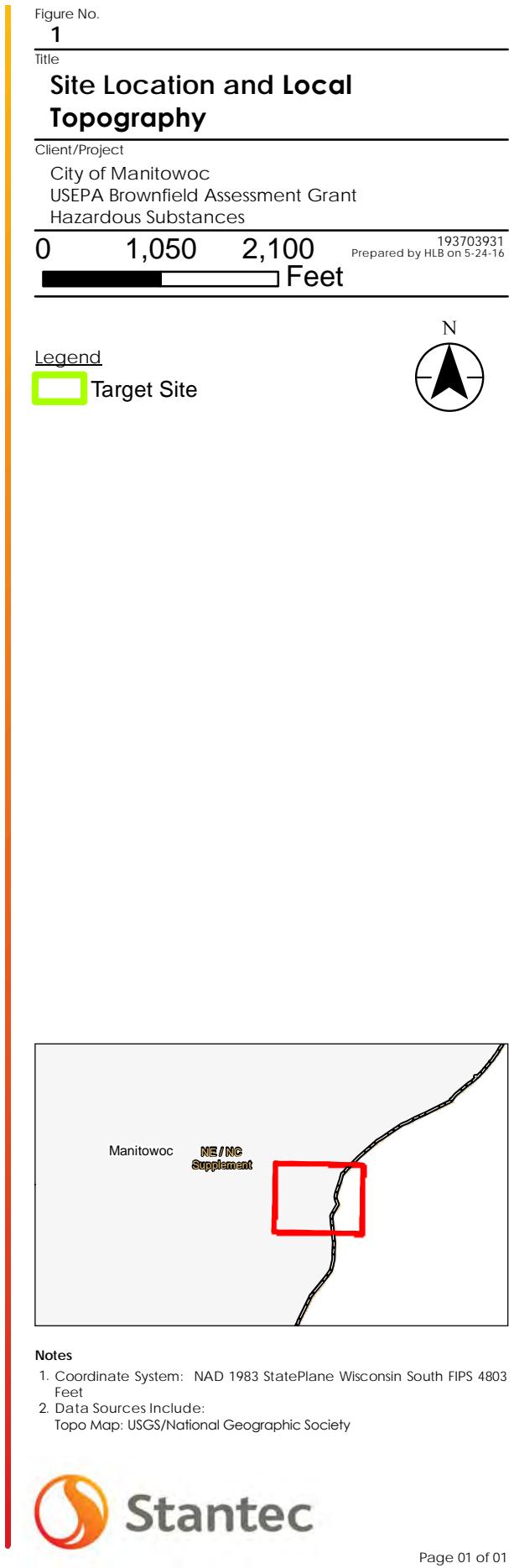
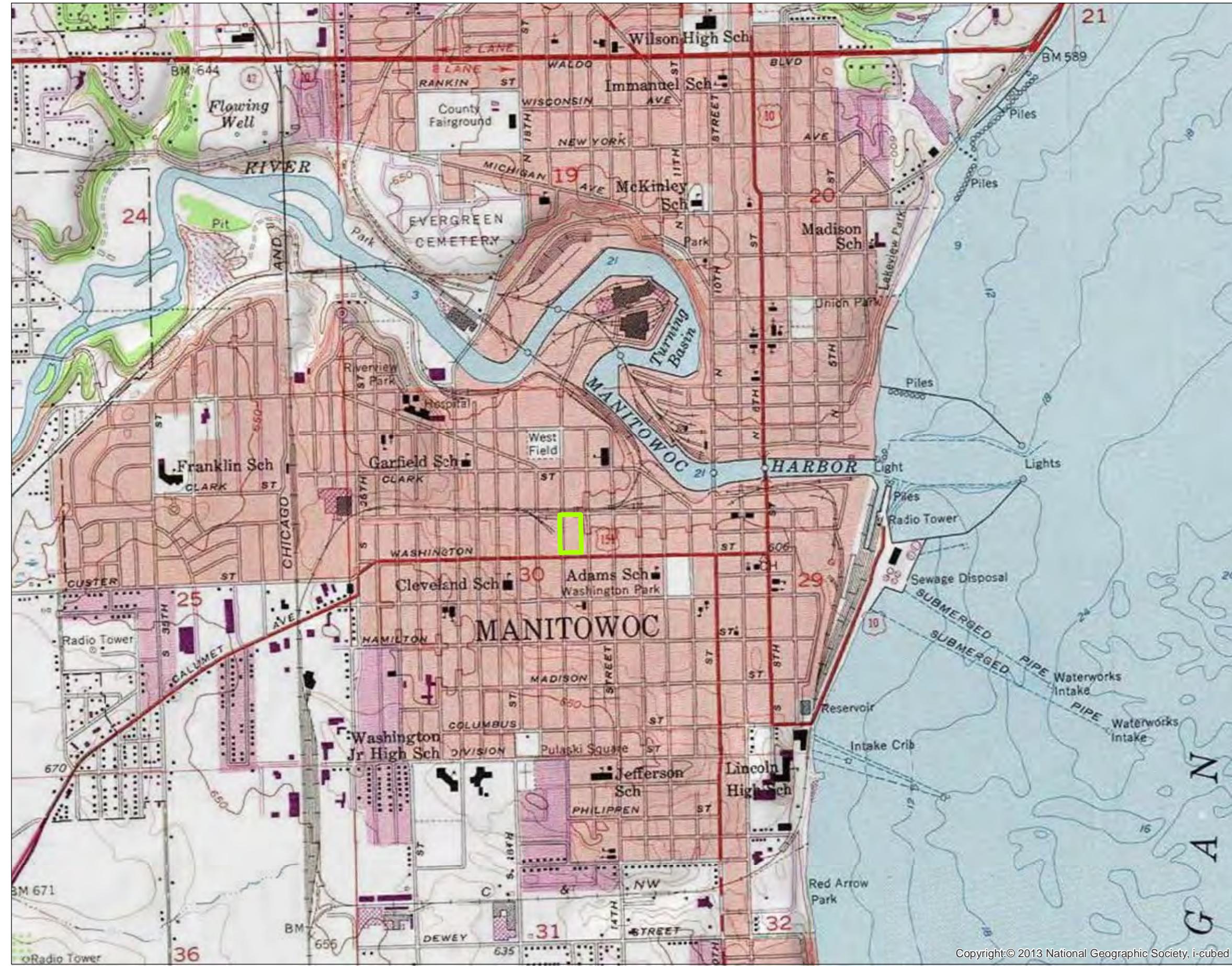
This Underground Storage Tank Removal and Confirmation Sampling investigation was performed in accordance with generally accepted practices of the profession for performing similar studies at the same time and in the same geographical area. Stantec observed that degree of care and skill generally exercised by the profession under similar circumstances and conditions. No other warranty is expressed or implied.

Stantec observations, findings, and opinions must not be considered as scientific certainties, but only an opinion based on our professional judgment concerning the significance of the data gathered during the course of the investigation. Specifically, Stantec does not and cannot represent that the Site contains no hazardous or toxic materials or other latent condition beyond that observed by Stantec.

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# FIGURES

Design with community in mind



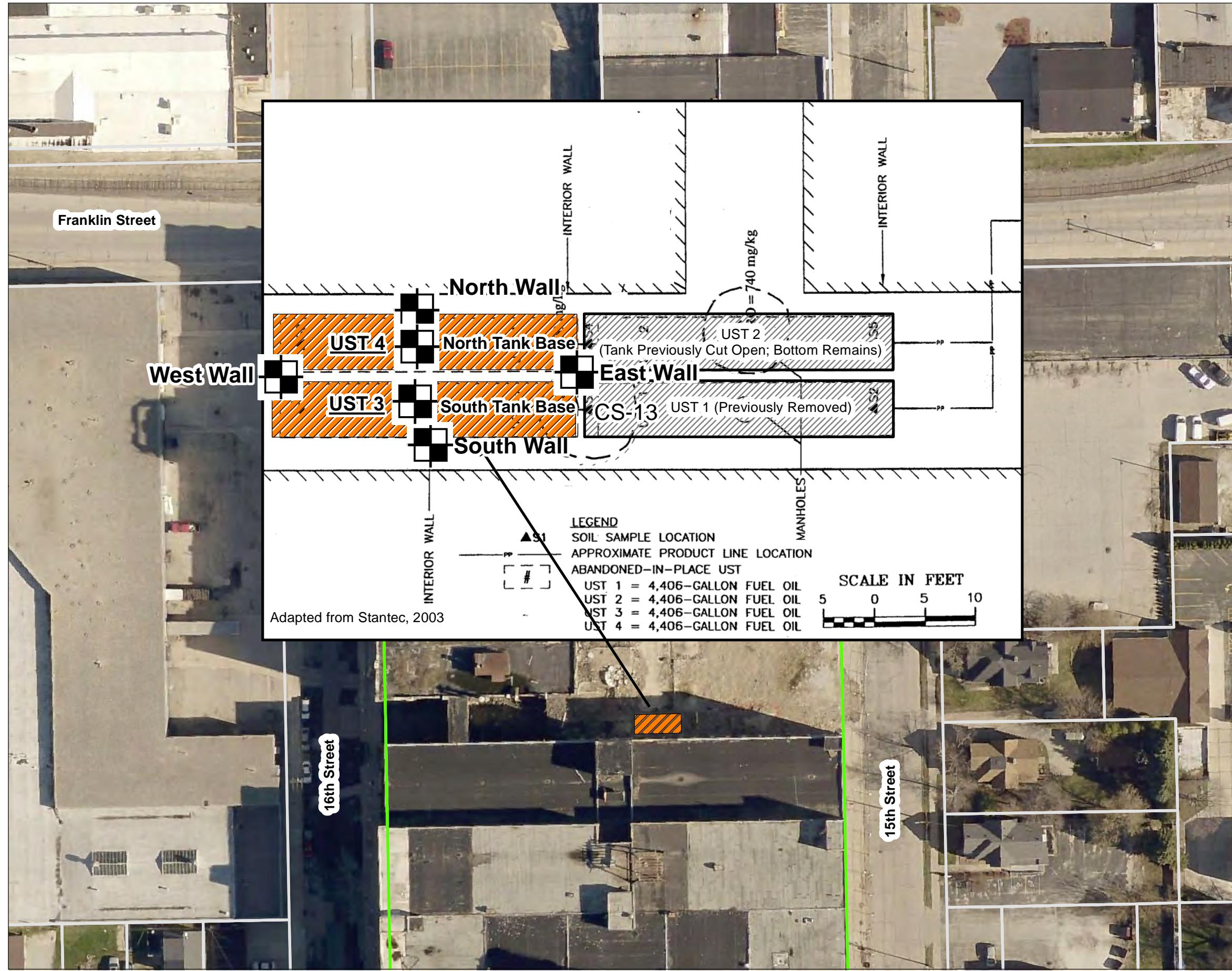


Figure No.  
2  
Title  
Removed Underground Storage Tanks  
and Soil Sampling Locations

Client/Project  
City of Manitowoc  
USEPA Brownfield Assessment Grant  
Hazardous Substances

0 45 90  
Feet  
Prepared by HLB on 5-18-2020  
1937003931

## Legend

- Target Property
- Parcels
- Removed Underground Storage Tanks
- Soil Sample Location



- Notes
- Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803
  - Feet
  - Data Sources Include:  
Orthophotography: 2015 City of Manitowoc

# TABLE

Table 1  
Detected Constituents in Soil  
1512 Washington Street  
Manitowoc, Wisconsin

Detected Constituents in Soil	Units	Non-Industrial Direct Contact RCL (A)	Industrial Direct Contact RCL (B)	Soil to Groundwater RCL (C)	Sample Location/ID, Sample Date, Laboratory ID, Associated Tank ID								Trip Blank (MeOH TB) 06/08/2021 500-200584-7
					South Wall 06/08/2021 500-200584-1 UST 3	South Tank Base 06/08/2021 500-200584-2 UST 3	West Wall 06/08/2021 500-200584-3 UST 3 & UST 4	East Wall 06/08/2021 500-200584-4 UST 3 & UST 4	North Tank Base 06/08/2021 500-200584-5 UST 4	North Wall 06/08/2021 500-200584-6 UST 4			
<b>Polycyclic Aromatic Hydrocarbons</b>													
Acenaphthene	µg/kg	3,590,000	45,200,000	n/v	< 6.2	< 6.6	J < 6.2	74	69	12	J	--	
Acenaphthylene	µg/kg	n/v	n/v	n/v	< 4.5	< 4.9	J < 4.5	22	J	8.3	J	< 4.6	--
Anthracene	µg/kg	17,900,000	100,000,000	196,949	< 5.7	25	J < 5.7	190	240	< 5.8		--	
Benzo(a)anthracene	µg/kg	1,140	20,800	n/v	19 J	380	J 7.0	770	1,500 <sup>A</sup>	56		--	
Benzo(a)pyrene	µg/kg	115	2,110	470	15 J	170 <sup>A</sup>	J 7.3	660 <sup>AC</sup>	850 <sup>AC</sup>	40		--	
Benzo(b)fluoranthene	µg/kg	1,150	21,100	478	20 J	490 <sup>C</sup>	< 7.4	1,100 <sup>C</sup>	1,900 <sup>AC</sup>	150		--	
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	< 11	150	< 11	190	350	55		--	
Benzo(k)fluoranthene	µg/kg	11,500	211,000	n/v	< 10	200	< 10	440	790	48		--	
Chrysene	µg/kg	115,000	2,110,000	144	20 J	560 <sup>C</sup>	< 9.4	770 <sup>C</sup>	1,600 <sup>C</sup>	95		--	
Dibenzo(a,h)anthracene	µg/kg	115	2,110	n/v	< 6.6	52	< 6.6	74	130 <sup>A</sup>	17	J	--	
Fluoranthene	µg/kg	2,390,000	30,100,000	88,878	19 J	660	8.0 J	1,400	2,300	96		--	
Fluorene	µg/kg	2,390,000	30,100,000	14,830	< 4.8	< 5.2	< 4.8	75	79	11	J	--	
Indeno(1,2,3-cd)pyrene	µg/kg	1,150	21,100	n/v	< 8.9	130	< 8.9	200	320	49		--	
Methylnaphthalene, 1-	µg/kg	17,600	72,700	n/v	< 8.4	< 9.0	< 8.4	25 J	< 8.7	< 8.5		--	
Methylnaphthalene, 2-	µg/kg	239,000	3,010,000	n/v	< 6.3	< 6.8	< 6.3	34 J	< 6.6	< 6.4		--	
Naphthalene	µg/kg	5,520	24,100	658	< 5.3	< 5.7	< 5.3	120	7.4	< 5.4		--	
Phenanthrene	µg/kg	n/v	n/v	n/v	< 4.8	310	< 4.8	1,000	1,800	40		--	
Pyrene	µg/kg	1,790,000	22,600,000	54,546	20 J	580	8.4 J	1,200	2,200	66		--	
<b>Volatile Organic Compounds</b>													
Naphthalene	µg/kg	5,520	24,100	658	< 17	< 16	< 17	87	< 17	< 17	< 17	< 17	
Toluene	µg/kg	818,000	818,000	1,107	< 7.4	< 7.2	< 7.4	24	< 7.3	< 7.3	< 7.3	< 7.4	
Trichlorobenzene, 1,2,3-	µg/kg	62,600	934,000	n/v	< 23	< 22	< 23	53	< 23	< 23	< 23	< 23	
Trichlorobenzene, 1,2,4-	µg/kg	24,000	113,000	408	< 17	< 17	< 17	37 J	< 17	< 17	< 17	< 17	

Notes:

- RCL Wisconsin Soil Residual Contaminant Levels (as of December 2018), available at <https://dnr.wi.gov/topic/Brownfields/documents/tech/RCLs.xlsx>.
- A** Concentration exceeds Wisconsin Non-Industrial Direct Contact RCL
- B** Concentration exceeds Wisconsin Industrial Direct Contact RCL
- C** Concentration exceeds Wisconsin Soil to Groundwater RCL
- AC** Concentration exceeds Wisconsin Non-Industrial Direct Contact RCL and the Soil to Groundwater RCL
- 15.2 Measured concentration did not exceed the indicated standard
- <0.03 Analyte was not detected at a concentration greater than the laboratory reporting limit
- n/v No standard/guideline value
- Parameter not analyzed
- J The reported result is an estimated value
- µg/kg Micrograms per kilogram

# ATTACHMENTS

# **ATTACHMENT A**

## **Photographic Documentation**

Client:	City of Manitowoc	Project:	193706270
Site Name:	Former Mirro Facility	Site Location:	1512 Washington Street, Manitowoc, WI
<b>Photograph ID: 1</b>	 A white Link-Belt excavator is positioned on a dirt construction site. In the foreground, a large, dark, cylindrical object, likely a piece of equipment or debris, lies on the ground. The background shows some buildings and other construction equipment under a clear sky.		
<b>Photo Location:</b> Northeast corner of excavation			
<b>Direction:</b> Looking southwest			
<b>Survey Date:</b> 6/7/2021			
<b>Comments:</b> Revealing the underground storage tanks (USTs).			
<b>Photograph ID: 2</b>	 A wide-angle view of the same construction site. Two workers in blue protective gear are visible; one is kneeling in the foreground on the left, and another is further back on the right. A red excavator is on the left, and a white Link-Belt excavator is on the right. The site is a mix of dirt, rocks, and some remaining structures.		
<b>Photo Location:</b> North of excavation			
<b>Direction:</b> Looking southwest			
<b>Survey Date:</b> 6/7/2021			
<b>Comments:</b> Cutting the top of UST 4 to facilitate removal.			

Client:	City of Manitowoc	Project:	193706270
Site Name:	Former Mirro Facility	Site Location:	1512 Washington Street, Manitowoc, WI
<b>Photograph ID:</b> 3			
<b>Photo Location:</b> East of excavation			
<b>Direction:</b> Looking west			
<b>Survey Date:</b> 6/7/2021			
<b>Comments:</b> Removing the top of UST 4 to facilitate removal. UST 3 is also shown (left) with a monitoring well (MW-25) installed through its very west end; this well was abandoned as part of this June 2021 tank removal event.			
<b>Photograph ID:</b> 4			
<b>Photo Location:</b> West of excavation			
<b>Direction:</b> Looking east			
<b>Survey Date:</b> 6/7/2021			
<b>Comments:</b> Cutting the top of UST 4.			

Client:	City of Manitowoc	Project:	193706270
Site Name:	Former Mirro Facility	Site Location:	1512 Washington Street, Manitowoc, WI
<b>Photograph ID:</b> 5			
<b>Photo Location:</b> West of excavation			
<b>Direction:</b> Looking west			
<b>Survey Date:</b> 6/8/2021			
<b>Comments:</b> UST 3 and UST 4 were removed from the excavation once the inert, cementitious backfill was removed. The inert backfill was hauled offsite to Badgerland Aggregates, LLC and the metal scrap was hauled to Sadoff Iron & Metal.			
<b>Photograph ID:</b> 6			
<b>Photo Location:</b> West of excavation			
<b>Direction:</b> Looking east			
<b>Survey Date:</b> 6/8/2021			
<b>Comments:</b> Another view of removed tanks UST 3 and UST 4.			

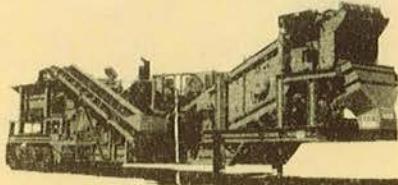
<b>Client:</b>	<b>City of Manitowoc</b>	<b>Project:</b>	<b>193706270</b>
<b>Site Name:</b>	<b>Former Mirro Facility</b>	<b>Site Location:</b>	<b>1512 Washington Street, Manitowoc, WI</b>
<b>Photograph ID: 7</b>			
<b>Photo Location:</b> Northwest corner of excavation			
<b>Direction:</b> Looking southeast			
<b>Survey Date:</b> 6/8/2021			
<b>Comments:</b> Tank bed conditions following the removal of UST 3 and UST 4. Monitoring well MW-25 is visible in the southwest corner of the tank bed, and is removed prior to backfilling the tank bed.			
<b>Photograph ID: 8</b>			
<b>Photo Location:</b> Southeast corner of excavation			
<b>Direction:</b> Looking northwest			
<b>Survey Date:</b> 6/8/2021			
<b>Comments:</b> Another view of the tank bed conditions prior to backfilling.			

Client:	City of Manitowoc	Project:	193706270
Site Name:	Former Mirro Facility	Site Location:	1512 Washington Street, Manitowoc, WI
<b>Photograph ID:</b> 9			
<b>Photo Location:</b> West end of excavation			
<b>Direction:</b> Looking north			
<b>Survey Date:</b> 6/8/2021			
<b>Comments:</b> Confirmation sampling was performed from the tank bed floor and sidewalls (MW-25 now abandoned). No visual or olfactory indications of petroleum contamination were observed.			
<b>Photograph ID:</b> 10			
<b>Photo Location:</b> Confirmation samples			
<b>Direction:</b>			
<b>Survey Date:</b> 6/8/2021			
<b>Comments:</b> Confirmation sampling was performed from the tank bed floor and sidewalls. No visual or olfactory indications of petroleum contamination were observed.			

Client:	City of Manitowoc	Project:	193706270
Site Name:	Former Mirro Facility	Site Location:	1512 Washington Street, Manitowoc, WI
<b>Photograph ID:</b> 11			
<b>Photo Location:</b> Southeast of excavation			
<b>Direction:</b> Looking northeast			
<b>Survey Date:</b> 6/8/2021			
<b>Comments:</b> Clean, granular fill was imported from Badgerland Aggregates, LLC for backfilling the tank excavation.			
<b>Photograph ID:</b> 12			
<b>Photo Location:</b> Southwest of excavation			
<b>Direction:</b> Looking northeast			
<b>Survey Date:</b> 6/8/2021			
<b>Comments:</b> Final tank bed conditions following placement of the imported granular backfill.			

**ATTACHMENT B**

**Badgerland Aggregates Disposal and  
Imported Fill Tickets**



Badgerland Aggregates, LLC

out

Q - Pit  
Pit Phone : 920-755-2131  
Office Phone: 920-657-1586  
HAVE A NICE DAY!

COMPANY CODE: 0000900  
BILLING COMPANY: Cash Customer  
ADDRESS:

TICKET #: 1124552  
DATE: 6/8/2021  
TIME: 09:45 AM

HAULER CODE #: 0009727  
HAULER COMPANY: Lueder Trucking

JOB NAME:

JOB CODE #:

JOB LOADS: 0

ORDERED: 0

DELIVERED: 0

REMAINING: 0

TRUCK LOADS: 0

DELIVERED TODAY: 0

TRUCK: 115

EMPTY WEIGHT: 65000

FULL WEIGHT: 29120

LOAD WEIGHT: 35880

TONS: 17.94

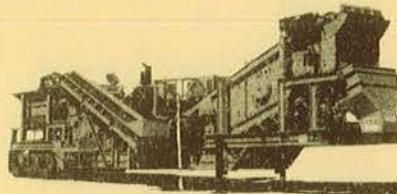
LOAD CODE: 91

TYPE OF LOAD: Concrete-Disposal

REC'D BY:

*Roger Hoffner* MEMO:

Ticket EditedReprinted Ticket



Badgerland Aggregates, LLC

Q - Pit

~~in~~ out

CON.

Pit Phone : 920-755-2131

Office Phone: 920-657-1586

HAVE A NICE DAY!

COMPANY CODE: 0000900  
BILLING COMPANY: Cash Customer  
ADDRESS:

TICKET #: 1124572  
DATE: 6/8/2021  
TIME: 11:06 AM

HAULER CODE #: 0009727  
HAULER COMPANY: Lueder Trucking

JOB NAME:

JOB CODE #:

JOB LOADS: 0

ORDERED: 0

DELIVERED: 0

REMAINING: 0

TRUCK LOADS: 0

DELIVERED TODAY: 0

TRUCK: 115

EMPTY WEIGHT: 65000  
FULL WEIGHT: 29120

LOAD WEIGHT: 35880

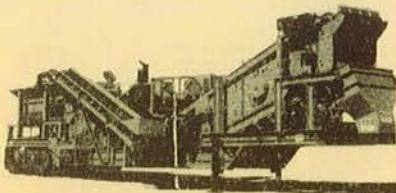
TONS: 17.94

LOAD CODE: 102

TYPE OF LOAD: Spoils

REC'D BY:

*Roger Hoffner* MEMO:



Badgerland Aggregates, LLC  
Q - Pit  
Pit Phone : 920-755-2131  
Office Phone: 920-657-1586  
HAVE A NICE DAY!

COMPANY CODE: 0000900  
BILLING COMPANY: Cash Customer  
ADDRESS:

TICKET #: 1124586  
DATE: 6/8/2021  
TIME: 12:37 PM

HAULER CODE #: 0009727  
HAULER COMPANY: Lueder Trucking

JOB NAME:

JOB CODE #:

JOB LOADS: 0

ORDERED: 0

DELIVERED: 0

REMAINING: 0

TRUCK LOADS: 0

DELIVERED TODAY: 0

TRUCK: 115

EMPTY WEIGHT: 65000

FULL WEIGHT: 29120

LOAD WEIGHT: 35880

TONS: 17.94

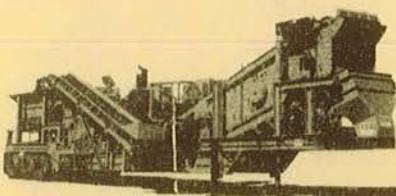
LOAD CODE: 91

TYPE OF LOAD: Concrete-Disposal

RECD BY:

*Roger Haffner*

MEMO:



Badgerland Aggregates, LLC  
Q - Pit  
Pit Phone : 920-755-2131  
Office Phone: 920-657-1586  
HAVE A NICE DAY!

COMPANY CODE: 0000900  
BILLING COMPANY: Cash Customer  
ADDRESS:

TICKET #: 1124600  
DATE: 6/8/2021  
TIME: 01:58 PM

HAULER CODE #: 0009727  
HAULER COMPANY: Lueder Trucking

JOB NAME:

JOB CODE #:

JOB LOADS: 0

ORDERED: 0

DELIVERED: 0

REMAINING: 0

TRUCK LOADS: 0

DELIVERED TODAY: 0

TRUCK: 115

EMPTY WEIGHT: 65000

FULL WEIGHT: 29120

LOAD WEIGHT: 35880

TONS: 17.94

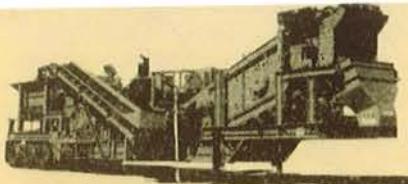
LOAD CODE: 91

TYPE OF LOAD: Concrete-Disposal

RECD BY:

*Roger Haffner*

MEMO:



Badgerland Aggregates, LLC

Q - Pit

Pit Phone : 920-755-2131

Office Phone: 920-657-1586

HAVE A NICE DAY!

IN SAND

COMPANY CODE: 0000900

TICKET #: 1124558

BILLING COMPANY: Cash Customer

DATE: 6/8/2021

ADDRESS:

TIME: 10:02 AM

HAULER CODE #: 0009727

HAULER COMPANY: Lueder Trucking

JOB NAME:

JOB CODE #:

JOB LOADS: 0

ORDERED: 0

DELIVERED: 0

REMAINING: 0

TRUCK: 115

TRUCK LOADS: 0

DELIVERED TODAY: 0

EMPTY WEIGHT: 29120

FULL WEIGHT: 71940

LOAD WEIGHT: 42820

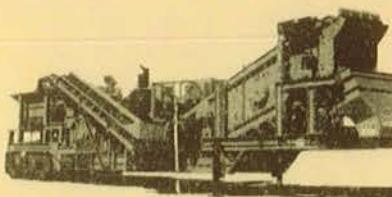
TONS: 21.41

LOAD CODE: 34

TYPE OF LOAD: Waterhole Fill

REC'D BY:

MEMO:



Badgerland Aggregates, LLC

Q - Pit

Pit Phone : 920-755-2131

Office Phone: 920-657-1586

HAVE A NICE DAY!

COMPANY CODE: 0000900

TICKET #: 1124577

BILLING COMPANY: Cash Customer

DATE: 6/8/2021

ADDRESS:

TIME: 11:25 AM

HAULER CODE #: 0009727

HAULER COMPANY: Lueder Trucking

JOB NAME:

JOB CODE #:

JOB LOADS: 0

ORDERED: 0

DELIVERED: 0

REMAINING: 0

TRUCK: 115

TRUCK LOADS: 0

DELIVERED TODAY: 0

EMPTY WEIGHT: 29120

FULL WEIGHT: 72880

LOAD WEIGHT: 43760

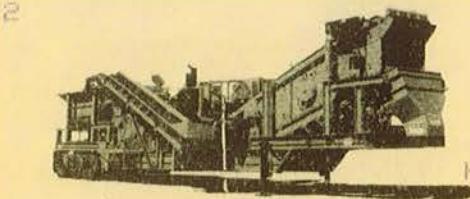
TONS: 21.88

LOAD CODE: 34

TYPE OF LOAD: Waterhole Fill

REC'D BY:

MEMO:



Badgerland Aggregates, LLC

G - Pit

Pit Phone : 920-755-2131

Office Phone: 920-657-1586

HAVE A NICE DAY!

COMPANY CODE: 0000900  
BILLING COMPANY: Cash Customer  
ADDRESS:

TICKET #: 1124589  
DATE: 6/8/2021  
TIME: 12:50 PM

HAULER CODE #: 0009727  
HAULER COMPANY: Lueder Trucking

JOB NAME:

JOB CODE #:

JOB LOADS: 0

TRUCK: 115

ORDERED: 0

DELIVERED: 0

REMAINING: 0

TRUCK LOADS: 0

DELIVERED TODAY: 0

EMPTY WEIGHT: 29120

FULL WEIGHT: 70940

LOAD WEIGHT: 41820

TONS: 20.91

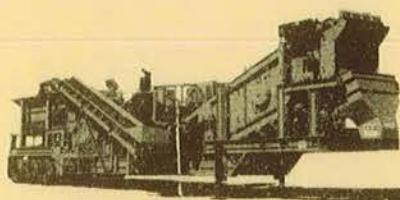
LOAD CODE: 34

TYPE OF LOAD: Waterhole Fill

REC'D BY:

*Roger Hoffner*

MEMO:



Badgerland Aggregates, LLC

G - Pit

Pit Phone : 920-755-2131

Office Phone: 920-657-1586

HAVE A NICE DAY!

COMPANY CODE: 0000900  
BILLING COMPANY: Cash Customer  
ADDRESS:

TICKET #: 1124602  
DATE: 6/8/2021  
TIME: 02:13 PM

HAULER CODE #: 0009727  
HAULER COMPANY: Lueder Trucking

JOB NAME:

JOB CODE #:

JOB LOADS: 0

TRUCK: 115

ORDERED: 0

DELIVERED: 0

REMAINING: 0

TRUCK LOADS: 0

DELIVERED TODAY: 0

EMPTY WEIGHT: 29120

FULL WEIGHT: 72980

LOAD WEIGHT: 43860

TONS: 21.93

LOAD CODE: 34

TYPE OF LOAD: Waterhole Fill

REC'D BY:

*Roger Hoffner*

MEMO:

# **ATTACHMENT C**

## **Sadoff Iron & Metal Disposal Documentation**

**Cull, Whitney**

**To:** Adam  
**Subject:** RE: Sadoff scrap ticket

---

**From:** Karen Eckert <[eckertk@sadoff.com](mailto:eckertk@sadoff.com)>  
**Sent:** Wednesday, June 30, 2021 10:28 AM  
**To:** [adam@hcexploration.com](mailto:adam@hcexploration.com)  
**Subject:** Sadoff scrap ticket

Hi Adam,

Please find below the ticket of scrap metal we picked up. Should you need anything else, please let me know. It was a pleasure to do business with you and we should definitely discuss more opportunities in the future.

Have a great holiday weekend.

Karen

**Ticket Info #: TBFEEU**

Purchased From: HORI03  
HORIZON CONSTRUCTION &  
EXPLORATION  
FREDONIA WI 53021

SHEBOYGAN  
3313 N 21ST STREET  
SHEBOYGAN WI 53083  
920.457.2431

Veh # TK 103	ID # 103/1316s35	Order# 21339 01	Vendor SO	Trip # 278439	Supp Shipt
--------------	------------------	-----------------	-----------	---------------	------------

SHPMNT	COMMODITY	GROSS	TARE	NET	ADJ	ADJ REASON	#CARS	RED CNT	RED WT	RED EXT	PD WT
572824	1401 - UNPREP STEEL - SHEAR	48,680A	37,500A	11,180	-40	DIRT					11,140
<b>Totals</b>		48,680	37,500	11,180	-40		0	0	0	\$ 0.00	11,140

TICKET COMMENT: 40 lbs dirt

INSPECTOR: TRAVIS M

INSPECTION COMMENT: unprep steel 40 lbs dirt

WEIGHMASTER INITIALS: \*\*\* -LAURIE B

M FOLLOWING A WEIGHT REPRESENTS A WEIGHT THAT WAS MANUALLY ENTERED  
A=Scale 1 B=Scale 2 C=Scale 3 D=Scale 4

Display as Form

GRS Date 06/09/21

GRS Time 11:08

TRE Date 06/09/21

TRE Time 11:18

**Karen Eckert**

Account Representative

C (920) 918-7950

E [eckertk@sadoff.com](mailto:eckertk@sadoff.com)



\*R2 Certified Facilities: La Vista, NE/Oshkosh, WI

**ATTACHMENT D**

**MW-25 Well Abandonment Form**

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return this form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to:

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Drinking Water   | <input type="checkbox"/> Watershed/Wastewater | <input type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other                |  |

**1. Well Location Information**

**2. Facility / Owner Information**

County  Manitowoc	WI Unique Well # of Removed Well  MW-25	Hicap #	Facility Name  Former Mirro Facility
Latitude / Longitude (Degrees and Minutes)  ° ° ° N ° ° ° W		Method Code (see instructions)	Facility ID (FID or PWS)
1/4 1/4 or Gov't Lot #	1/4 NE Section 30	Township 19	Range 24 <input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well Street Address  1512 Washington Street			
Well City, Village or Town  Manitowoc		Well ZIP Code  54220	Original Well Owner
Subdivision Name		Lot #	Present Well Owner  City of Manitowoc Community Development Authority
Reason For Removal From Service  Well abandonment		Mailing Address of Present Owner  900 Quay Street	
3. Well / Drillhole / Borehole Information		City of Present Owner  Manitowoc	
<input checked="" type="checkbox"/> Monitoring Well  <input type="checkbox"/> Water Well  <input type="checkbox"/> Drillhole / Borehole		Original Construction Date  3/27/2019  If a Well Construction Report is available, please attach.	
Construction Type:  <input checked="" type="checkbox"/> Drilled  <input type="checkbox"/> Other (Specify)		<input type="checkbox"/> Driven (Sandpoint)  <input type="checkbox"/> Dug	
Formation Type:  <input checked="" type="checkbox"/> Unconsolidated Formation		<input type="checkbox"/> Bedrock	
Total Well Depth From Ground Surface (ft)  15.0	Casing Diameter (in.)  2.00	Required Method of Placing Sealing Material  <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured <input type="checkbox"/> Other (Explain) (Bentonite Chips)	
Lower Drillhole Diameter (in.)  6.0	Casing Depth (ft.)  15.0	Sealing Materials  <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.) <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " " <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips	
Was well annular space grouted?  If yes, to what depth (feet)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown  Depth to Water (feet)	For Monitoring Wells and Monitoring Well Boreholes Only:  <input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	

**5. Material Used to Fill Well / Drillhole**

**From (ft.)**   **To (ft.)**   **No. Yards, Sacks Sealant or Volume (circle one)**   **Mix Ratio or Mud Weight**

Bentonite chips	Surface	15.0	1 Sack	N/A

**6. Comments**

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing  Horizon Construction and Exploration LLC	License #	Date of Filling & Sealing (mm/dd/yyyy)  6/8/2021	Date Received	Noted By	
Street or Route  764 Tower Drive	Telephone Number  (262) 692-3347		Comments		
City  Fredonia	State  WI	ZIP Code  53021	Signature of Person Doing Work  <i>Whitney Cull</i> (on behalf of Horizon)		Date Signed  7/6/2021

Facility/Project Name Former Mirro Facility		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <b>MW-25</b>
Facility License, Permit or Monitoring No. BRRTS #02-36-545108		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input checked="" type="checkbox"/> Lat. <input type="checkbox"/> " Long. <input type="checkbox"/> " or St. Plane <input type="checkbox"/> 300,037 ft. N, <input type="checkbox"/> 230,945 ft. E. <input type="checkbox"/> S/C/N	Wis. Unique Well No. <b>MW-25</b> DNR Well Number <b>MW-25</b>
Facility ID		Section Location of Waste/Source 1/4 of NE 1/4 of Sec. <input type="checkbox"/> 30, T. <input type="checkbox"/> 19 N, R. <input type="checkbox"/> 24 <input checked="" type="checkbox"/> E Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Date Well Installed <b>03/27/2019</b>
Type of Well Well Code 71/dw		Gov. Lot Number	Well Installed By: (Person's Name and Firm) <b>Roy Buckenberger</b>
Distance from Waste/ Source ft.	Enf. Stds. Apply <input type="checkbox"/>		Cascade Environmental
<p>A. Protective pipe, top elevation _____ ft. MSL</p> <p>B. Well casing, top elevation <b>606.52</b> ft. MSL</p> <p>C. Land surface elevation <b>605.1</b> ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <p>12. USCS classification of soil near screen:  <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used:      Rotary <input type="checkbox"/> 50      Hollow Stem Auger <input type="checkbox"/> 41      Rotosonic <input type="checkbox"/> Other <input checked="" type="checkbox"/> --</p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1      Drilling Mud <input type="checkbox"/> 0 3 None <input checked="" type="checkbox"/> 9 9</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      Describe _____</p> <p>17. Source of water (attach analysis, if required):</p>			
E. Bentonite seal, top	605.1 ft. MSL or <b>0.0</b> ft.	1. Cap and lock? <input type="checkbox"/> Yes <input type="checkbox"/> No	
F. Fine sand, top	603.1 ft. MSL or <b>2.0</b> ft.	2. Protective cover pipe: a. Inside diameter: _____ in. b. Length: _____ ft. c. Material: <b>Steel</b> <input type="checkbox"/> 0 4 <input type="checkbox"/> Other <input checked="" type="checkbox"/> -- <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
G. Filter pack, top	602.1 ft. MSL or <b>3.0</b> ft.	3. Surface seal: <b>N/A</b> <b>Bentonite</b> <input checked="" type="checkbox"/> 3 0 <b>Concrete</b> <input type="checkbox"/> 0 1 <input type="checkbox"/> Other <input checked="" type="checkbox"/> --	
H. Screen joint, top	600.1 ft. MSL or <b>5.0</b> ft.	4. Material between well casing and protective pipe: <b>Bentonite</b> <input type="checkbox"/> 3 0 <input type="checkbox"/> Other <input checked="" type="checkbox"/> --	
I. Well bottom	590.1 ft. MSL or <b>15.0</b> ft.	5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3 3 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 5 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 1 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 5 0 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 0 1 <input type="checkbox"/> Tremie pumped <input type="checkbox"/> 0 2 <input type="checkbox"/> Gravity <input type="checkbox"/> 0 8	
J. Filter pack, bottom	590.1 ft. MSL or <b>15.0</b> ft.	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2 c. _____ Other <input type="checkbox"/> --	
K. Borehole, bottom	590.1 ft. MSL or <b>15.0</b> ft.	7. Fine sand material: Manufacturer, product name & mesh size a. _____ #60 b. Volume added _____ ft <sup>3</sup>	
L. Borehole, diameter	<b>6.0</b> in.	8. Filter pack material: Manufacturer, product name & mesh size a. _____ #40 b. Volume added _____ ft <sup>3</sup>	
M. O.D. well casing	<b>2.38</b> in.	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4 <input type="checkbox"/> Other <input checked="" type="checkbox"/> --	
N. I.D. well casing	<b>2.00</b> in.	10. Screen material: <b>PVC</b> a. Screen Type: Factory cut <input checked="" type="checkbox"/> 1 1 <input type="checkbox"/> Continuous slot <input type="checkbox"/> 0 1 <input type="checkbox"/> Other <input checked="" type="checkbox"/> -- b. Manufacturer <b>Johnson</b> c. Slot size: <b>0.010</b> in. d. Slotted length: <b>10.0</b> ft.	
11. Backfill material (below filter pack): <b>None</b> <input checked="" type="checkbox"/> 1 4 <input type="checkbox"/> Other <input checked="" type="checkbox"/> --			

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm **Stantec**

Tel:  
Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

# **ATTACHMENT E**

## Laboratory Report



## Environment Testing America



### ANALYTICAL REPORT

Eurofins TestAmerica, Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

Laboratory Job ID: 500-200584-1

Client Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

For:

Stantec Consulting Corp.  
12075 Corporate Pkwy, Suite 200  
Mequon, Wisconsin 53092

Attn: Harris Byers

Jodie Bracken

Authorized for release by:

6/24/2021 1:08:47 PM

Jodie Bracken, Project Management Assistant II  
[Jodie.Bracken@Eurofinset.com](mailto:Jodie.Bracken@Eurofinset.com)

Designee for

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandra.fredrick@eurofinset.com](mailto:sandra.fredrick@eurofinset.com)

#### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?

Ask  
The  
Expert

Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1  
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15

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# Case Narrative

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Job ID: 500-200584-1

Laboratory: Eurofins TestAmerica, Chicago

### Narrative

Job Narrative  
500-200584-1

### Comments

No additional comments.

### Receipt

The samples were received on 6/10/2021 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9° C.

### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: South Wall

## Lab Sample ID: 500-200584-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	19	J	34	4.6	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]pyrene	15	J	34	6.7	ug/Kg	1	⊗	8270D	Total/NA
Benzo[b]fluoranthene	20	J	34	7.4	ug/Kg	1	⊗	8270D	Total/NA
Chrysene	20	J	34	9.4	ug/Kg	1	⊗	8270D	Total/NA
Fluoranthene	19	J	34	6.4	ug/Kg	1	⊗	8270D	Total/NA
Pyrene	20	J	34	6.8	ug/Kg	1	⊗	8270D	Total/NA

## Client Sample ID: South Tank Base

## Lab Sample ID: 500-200584-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	6.6	J	37	6.6	ug/Kg	1	⊗	8270D	Total/NA
Anthracene	25	J	37	6.2	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]anthracene	380		37	5.0	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]pyrene	170		37	7.1	ug/Kg	1	⊗	8270D	Total/NA
Benzo[b]fluoranthene	490		37	8.0	ug/Kg	1	⊗	8270D	Total/NA
Benzo[g,h,i]perylene	150		37	12	ug/Kg	1	⊗	8270D	Total/NA
Benzo[k]fluoranthene	200		37	11	ug/Kg	1	⊗	8270D	Total/NA
Chrysene	560		37	10	ug/Kg	1	⊗	8270D	Total/NA
Dibenz(a,h)anthracene	52		37	7.1	ug/Kg	1	⊗	8270D	Total/NA
Fluoranthene	660		37	6.8	ug/Kg	1	⊗	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	130		37	9.6	ug/Kg	1	⊗	8270D	Total/NA
Phenanthrene	310		37	5.1	ug/Kg	1	⊗	8270D	Total/NA
Pyrene	580		37	7.3	ug/Kg	1	⊗	8270D	Total/NA

## Client Sample ID: West Wall

## Lab Sample ID: 500-200584-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	7.0	J	34	4.6	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]pyrene	7.3	J	34	6.7	ug/Kg	1	⊗	8270D	Total/NA
Fluoranthene	8.0	J	34	6.4	ug/Kg	1	⊗	8270D	Total/NA
Pyrene	8.4	J	34	6.8	ug/Kg	1	⊗	8270D	Total/NA

## Client Sample ID: East Wall

## Lab Sample ID: 500-200584-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3-Trichlorobenzene	53		47	22	ug/Kg	50		8260B	Total/NA
1,2,4-Trichlorobenzene	37	J	47	16	ug/Kg	50		8260B	Total/NA
Naphthalene	87		47	16	ug/Kg	50		8260B	Total/NA
Toluene	24		12	6.9	ug/Kg	50		8260B	Total/NA
1-Methylnaphthalene	25	J	70	8.5	ug/Kg	1	⊗	8270D	Total/NA
2-Methylnaphthalene	34	J	70	6.4	ug/Kg	1	⊗	8270D	Total/NA
Acenaphthene	74		35	6.2	ug/Kg	1	⊗	8270D	Total/NA
Acenaphthylene	22	J	35	4.6	ug/Kg	1	⊗	8270D	Total/NA
Anthracene	190		35	5.8	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]anthracene	770		35	4.7	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]pyrene	660		35	6.7	ug/Kg	1	⊗	8270D	Total/NA
Benzo[b]fluoranthene	1100		35	7.5	ug/Kg	1	⊗	8270D	Total/NA
Benzo[g,h,i]perylene	190		35	11	ug/Kg	1	⊗	8270D	Total/NA
Benzo[k]fluoranthene	440		35	10	ug/Kg	1	⊗	8270D	Total/NA
Chrysene	770		35	9.5	ug/Kg	1	⊗	8270D	Total/NA
Dibenz(a,h)anthracene	74		35	6.7	ug/Kg	1	⊗	8270D	Total/NA
Fluoranthene	1400		35	6.4	ug/Kg	1	⊗	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: East Wall (Continued)

## Lab Sample ID: 500-200584-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	75		35	4.9	ug/Kg	1	⊗	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	200		35	9.0	ug/Kg	1	⊗	8270D	Total/NA
Naphthalene	120		35	5.3	ug/Kg	1	⊗	8270D	Total/NA
Phenanthrene	1000		35	4.8	ug/Kg	1	⊗	8270D	Total/NA
Pyrene	1200		35	6.9	ug/Kg	1	⊗	8270D	Total/NA

## Client Sample ID: North Tank Base

## Lab Sample ID: 500-200584-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	69		35	6.4	ug/Kg	1	⊗	8270D	Total/NA
Acenaphthylene	8.3 J		35	4.7	ug/Kg	1	⊗	8270D	Total/NA
Anthracene	240		35	6.0	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]anthracene	1500		35	4.8	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]pyrene	850		35	6.9	ug/Kg	1	⊗	8270D	Total/NA
Benzo[b]fluoranthene	1900		35	7.7	ug/Kg	1	⊗	8270D	Total/NA
Benzo[g,h,i]perylene	350		35	12	ug/Kg	1	⊗	8270D	Total/NA
Benzo[k]fluoranthene	790		35	11	ug/Kg	1	⊗	8270D	Total/NA
Chrysene	1600		35	9.7	ug/Kg	1	⊗	8270D	Total/NA
Dibenz(a,h)anthracene	130		35	6.9	ug/Kg	1	⊗	8270D	Total/NA
Fluoranthene	2300		35	6.6	ug/Kg	1	⊗	8270D	Total/NA
Fluorene	79		35	5.0	ug/Kg	1	⊗	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	320		35	9.3	ug/Kg	1	⊗	8270D	Total/NA
Naphthalene	7.4 J		35	5.5	ug/Kg	1	⊗	8270D	Total/NA
Phenanthrene	1800		35	5.0	ug/Kg	1	⊗	8270D	Total/NA
Pyrene	2200		35	7.1	ug/Kg	1	⊗	8270D	Total/NA

## Client Sample ID: North Wall

## Lab Sample ID: 500-200584-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	12 J		35	6.3	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]anthracene	56		35	4.7	ug/Kg	1	⊗	8270D	Total/NA
Benzo[a]pyrene	40		35	6.7	ug/Kg	1	⊗	8270D	Total/NA
Benzo[b]fluoranthene	150		35	7.5	ug/Kg	1	⊗	8270D	Total/NA
Benzo[g,h,i]perylene	55		35	11	ug/Kg	1	⊗	8270D	Total/NA
Benzo[k]fluoranthene	48		35	10	ug/Kg	1	⊗	8270D	Total/NA
Chrysene	95		35	9.5	ug/Kg	1	⊗	8270D	Total/NA
Dibenz(a,h)anthracene	17 J		35	6.7	ug/Kg	1	⊗	8270D	Total/NA
Fluoranthene	96		35	6.5	ug/Kg	1	⊗	8270D	Total/NA
Fluorene	11 J		35	4.9	ug/Kg	1	⊗	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	49		35	9.0	ug/Kg	1	⊗	8270D	Total/NA
Phenanthrene	40		35	4.8	ug/Kg	1	⊗	8270D	Total/NA
Pyrene	66		35	6.9	ug/Kg	1	⊗	8270D	Total/NA

## Client Sample ID: MeOH TB

## Lab Sample ID: 500-200584-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

## Method Summary

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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# Sample Summary

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-200584-1	South Wall	Solid	06/08/21 19:00	06/10/21 09:45	
500-200584-2	South Tank Base	Solid	06/08/21 19:05	06/10/21 09:45	
500-200584-3	West Wall	Solid	06/08/21 19:10	06/10/21 09:45	
500-200584-4	East Wall	Solid	06/08/21 19:15	06/10/21 09:45	
500-200584-5	North Tank Base	Solid	06/08/21 19:20	06/10/21 09:45	
500-200584-6	North Wall	Solid	06/08/21 19:25	06/10/21 09:45	
500-200584-7	MeOH TB	Solid	06/08/21 00:00	06/10/21 09:45	

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: South Wall

Date Collected: 06/08/21 19:00

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-1

Matrix: Solid

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	5
1,1,1-Trichloroethane	<19		50	19	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	6
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	7
1,1,2-Trichloroethane	<18		50	18	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	8
1,1-Dichloroethane	<21		50	21	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	9
1,1-Dichloroethene	<20		50	20	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	10
1,1-Dichloropropene	<15		50	15	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	11
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	12
1,2,3-Trichloropropane	<21		100	21	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	13
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	14
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	15
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	1
1,2-Dibromoethane	<19		50	19	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	2
1,2-Dichlorobenzene	<17		50	17	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	3
1,2-Dichloroethane	<20		50	20	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	4
1,2-Dichloropropene	<22		50	22	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	5
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	6
1,3-Dichlorobenzene	<20		50	20	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	7
1,3-Dichloropropane	<18		50	18	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	8
1,4-Dichlorobenzene	<18		50	18	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	9
2,2-Dichloropropane	<22		50	22	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	10
2-Chlorotoluene	<16		50	16	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	11
4-Chlorotoluene	<18		50	18	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	12
Benzene	<7.4		13	7.4	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	13
Bromobenzene	<18		50	18	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	14
Bromochloromethane	<22		50	22	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	15
Bromodichloromethane	<19		50	19	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	1
Bromoform	<24		50	24	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	2
Bromomethane	<40		150	40	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	3
Carbon tetrachloride	<19		50	19	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	4
Chlorobenzene	<19		50	19	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	5
Chloroethane	<25		50	25	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	6
Chloroform	<19		100	19	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	7
Chloromethane	<16		50	16	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	8
cis-1,2-Dichloroethene	<21		50	21	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	9
cis-1,3-Dichloropropene	<21		50	21	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	10
Dibromochloromethane	<25		50	25	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	11
Dibromomethane	<14		50	14	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	12
Dichlorodifluoromethane	<34		150	34	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	13
Ethylbenzene	<9.2		13	9.2	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	14
Hexachlorobutadiene	<22		50	22	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	15
Isopropyl ether	<14		50	14	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	1
Isopropylbenzene	<19		50	19	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	2
Methyl tert-butyl ether	<20		50	20	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	3
Methylene Chloride	<82		250	82	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	4
Naphthalene	<17		50	17	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	5
n-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	6
N-Propylbenzene	<21		50	21	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	7
p-Isopropyltoluene	<18		50	18	ug/Kg	06/08/21 19:00	06/22/21 11:43	50	8

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

**Client Sample ID: South Wall**

**Lab Sample ID: 500-200584-1**

**Matrix: Solid**

Date Collected: 06/08/21 19:00

Date Received: 06/10/21 09:45

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
Styrene	<19		50	19	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
tert-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
Tetrachloroethene	<19		50	19	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
Toluene	<7.4		13	7.4	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
Trichloroethene	<8.3		25	8.3	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
Trichlorofluoromethane	<22		50	22	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
Vinyl chloride	<13		50	13	ug/Kg	06/08/21 19:00	06/22/21 11:43		50
Xylenes, Total	<11		25	11	ug/Kg	06/08/21 19:00	06/22/21 11:43		50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		75 - 126	06/08/21 19:00	06/22/21 11:43	50
4-Bromofluorobenzene (Surr)	87		72 - 124	06/08/21 19:00	06/22/21 11:43	50
Dibromofluoromethane (Surr)	107		75 - 120	06/08/21 19:00	06/22/21 11:43	50
Toluene-d8 (Surr)	100		75 - 120	06/08/21 19:00	06/22/21 11:43	50

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: South Wall

Date Collected: 06/08/21 19:00

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-1

Matrix: Solid

Percent Solids: 94.8

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.4		69	8.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
2-Methylnaphthalene	<6.3		69	6.3	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Acenaphthene	<6.2		34	6.2	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Acenaphthylene	<4.5		34	4.5	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Anthracene	<5.7		34	5.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
<b>Benzo[a]anthracene</b>	<b>19 J</b>		34	4.6	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
<b>Benzo[a]pyrene</b>	<b>15 J</b>		34	6.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
<b>Benzo[b]fluoranthene</b>	<b>20 J</b>		34	7.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Benzo[g,h,i]perylene	<11		34	11	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Benzo[k]fluoranthene	<10		34	10	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
<b>Chrysene</b>	<b>20 J</b>		34	9.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Dibenz(a,h)anthracene	<6.6		34	6.6	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
<b>Fluoranthene</b>	<b>19 J</b>		34	6.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Fluorene	<4.8		34	4.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Indeno[1,2,3-cd]pyrene	<8.9		34	8.9	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Naphthalene	<5.3		34	5.3	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
Phenanthrene	<4.8		34	4.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
<b>Pyrene</b>	<b>20 J</b>		34	6.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 11:53	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)		95		43 - 145			06/19/21 05:42	06/21/21 11:53	1
Nitrobenzene-d5 (Surr)		87		37 - 147			06/19/21 05:42	06/21/21 11:53	1
Terphenyl-d14 (Surr)		102		42 - 157			06/19/21 05:42	06/21/21 11:53	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: South Tank Base

Date Collected: 06/08/21 19:05

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-2

Matrix: Solid

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		49	23	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	5
1,1,1-Trichloroethane	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	6
1,1,2,2-Tetrachloroethane	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	7
1,1,2-Trichloroethane	<17		49	17	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	8
1,1-Dichloroethane	<20		49	20	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	9
1,1-Dichloroethene	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	10
1,1-Dichloropropene	<15		49	15	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	11
1,2,3-Trichlorobenzene	<22		49	22	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	12
1,2,3-Trichloropropane	<20		98	20	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	13
1,2,4-Trichlorobenzene	<17		49	17	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	14
1,2,4-Trimethylbenzene	<18		49	18	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	15
1,2-Dibromo-3-Chloropropane	<97		240	97	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	1
1,2-Dibromoethane	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	2
1,2-Dichlorobenzene	<16		49	16	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	3
1,2-Dichloroethane	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	4
1,2-Dichloropropene	<21		49	21	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	5
1,3,5-Trimethylbenzene	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	6
1,3-Dichlorobenzene	<20		49	20	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	7
1,3-Dichloropropane	<18		49	18	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	8
1,4-Dichlorobenzene	<18		49	18	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	9
2,2-Dichloropropane	<22		49	22	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	10
2-Chlorotoluene	<15		49	15	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	11
4-Chlorotoluene	<17		49	17	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	12
Benzene	<7.1		12	7.1	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	13
Bromobenzene	<17		49	17	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	14
Bromochloromethane	<21		49	21	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	15
Bromodichloromethane	<18		49	18	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	1
Bromoform	<24		49	24	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	2
Bromomethane	<39		150	39	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	3
Carbon tetrachloride	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	4
Chlorobenzene	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	5
Chloroethane	<25		49	25	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	6
Chloroform	<18		98	18	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	7
Chloromethane	<16		49	16	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	8
cis-1,2-Dichloroethene	<20		49	20	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	9
cis-1,3-Dichloropropene	<20		49	20	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	10
Dibromochloromethane	<24		49	24	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	11
Dibromomethane	<13		49	13	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	12
Dichlorodifluoromethane	<33		150	33	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	13
Ethylbenzene	<9.0		12	9.0	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	14
Hexachlorobutadiene	<22		49	22	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	15
Isopropyl ether	<14		49	14	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	1
Isopropylbenzene	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	2
Methyl tert-butyl ether	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	3
Methylene Chloride	<80		240	80	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	4
Naphthalene	<16		49	16	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	5
n-Butylbenzene	<19		49	19	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	6
N-Propylbenzene	<20		49	20	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	7
p-Isopropyltoluene	<18		49	18	ug/Kg	06/08/21 19:05	06/22/21 12:10	50	8

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

**Client Sample ID: South Tank Base**

**Lab Sample ID: 500-200584-2**

**Matrix: Solid**

Date Collected: 06/08/21 19:05

Date Received: 06/10/21 09:45

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<19		49	19	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
Styrene	<19		49	19	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
tert-Butylbenzene	<19		49	19	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
Tetrachloroethene	<18		49	18	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
Toluene	<7.2		12	7.2	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
trans-1,2-Dichloroethene	<17		49	17	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
trans-1,3-Dichloropropene	<18		49	18	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
Trichloroethene	<8.0		24	8.0	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
Trichlorofluoromethane	<21		49	21	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
Vinyl chloride	<13		49	13	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
Xylenes, Total	<11		24	11	ug/Kg		06/08/21 19:05	06/22/21 12:10	50
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)		108		75 - 126			06/08/21 19:05	06/22/21 12:10	50
4-Bromofluorobenzene (Surr)		89		72 - 124			06/08/21 19:05	06/22/21 12:10	50
Dibromofluoromethane (Surr)		104		75 - 120			06/08/21 19:05	06/22/21 12:10	50
Toluene-d8 (Surr)		98		75 - 120			06/08/21 19:05	06/22/21 12:10	50

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: South Tank Base

Date Collected: 06/08/21 19:05

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-2

Matrix: Solid

Percent Solids: 88.4

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<9.0		74	9.0	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
2-Methylnaphthalene	<6.8		74	6.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Acenaphthene</b>	<b>6.6 J</b>		37	6.6	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
Acenaphthylene	<4.9		37	4.9	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Anthracene</b>	<b>25 J</b>		37	6.2	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Benzo[a]anthracene</b>	<b>380</b>		37	5.0	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Benzo[a]pyrene</b>	<b>170</b>		37	7.1	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Benzo[b]fluoranthene</b>	<b>490</b>		37	8.0	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Benzo[g,h,i]perylene</b>	<b>150</b>		37	12	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Benzo[k]fluoranthene</b>	<b>200</b>		37	11	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Chrysene</b>	<b>560</b>		37	10	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Dibenz(a,h)anthracene</b>	<b>52</b>		37	7.1	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Fluoranthene</b>	<b>660</b>		37	6.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
Fluorene	<5.2		37	5.2	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>130</b>		37	9.6	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
Naphthalene	<5.7		37	5.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Phenanthrene</b>	<b>310</b>		37	5.1	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Pyrene</b>	<b>580</b>		37	7.3	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:14	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	93			43 - 145			06/19/21 05:42	06/21/21 12:14	1
Nitrobenzene-d5 (Surr)	84			37 - 147			06/19/21 05:42	06/21/21 12:14	1
Terphenyl-d14 (Surr)	98			42 - 157			06/19/21 05:42	06/21/21 12:14	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: West Wall

Date Collected: 06/08/21 19:10

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-3

Matrix: Solid

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,1-Dichloroethane	<21		50	21	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,1-Dichloroethene	<20		50	20	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,1-Dichloropropene	<15		50	15	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,2,3-Trichloropropane	<21		100	21	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,2-Dibromoethane	<19		50	19	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,2-Dichloroethane	<20		50	20	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,2-Dichloropropene	<22		50	22	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,3-Dichloropropane	<18		50	18	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
2,2-Dichloropropane	<22		50	22	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
2-Chlorotoluene	<16		50	16	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
4-Chlorotoluene	<18		50	18	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Benzene	<7.3		13	7.3	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Bromobenzene	<18		50	18	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Bromochloromethane	<22		50	22	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Bromodichloromethane	<19		50	19	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Bromoform	<24		50	24	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Bromomethane	<40		150	40	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Carbon tetrachloride	<19		50	19	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Chlorobenzene	<19		50	19	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Chloroethane	<25		50	25	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Chloroform	<19		100	19	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Chloromethane	<16		50	16	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
cis-1,2-Dichloroethene	<21		50	21	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Dibromochloromethane	<25		50	25	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Dibromomethane	<14		50	14	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Dichlorodifluoromethane	<34		150	34	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Ethylbenzene	<9.2		13	9.2	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Hexachlorobutadiene	<22		50	22	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Isopropyl ether	<14		50	14	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Isopropylbenzene	<19		50	19	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Methyl tert-butyl ether	<20		50	20	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Methylene Chloride	<82		250	82	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
Naphthalene	<17		50	17	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
n-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
N-Propylbenzene	<21		50	21	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50
p-Isopropyltoluene	<18		50	18	ug/Kg	06/08/21 19:10	06/22/21 12:36	50	50

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

**Client Sample ID: West Wall**

**Lab Sample ID: 500-200584-3**

**Matrix: Solid**

Date Collected: 06/08/21 19:10

Date Received: 06/10/21 09:45

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
Styrene	<19		50	19	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
tert-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
Tetrachloroethene	<19		50	19	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
Toluene	<7.4		13	7.4	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
Trichloroethene	<8.2		25	8.2	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
Trichlorofluoromethane	<22		50	22	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
Vinyl chloride	<13		50	13	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
Xylenes, Total	<11		25	11	ug/Kg	06/08/21 19:10	06/22/21 12:36		50
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)		107		75 - 126			06/08/21 19:10	06/22/21 12:36	50
4-Bromofluorobenzene (Surr)		91		72 - 124			06/08/21 19:10	06/22/21 12:36	50
Dibromofluoromethane (Surr)		103		75 - 120			06/08/21 19:10	06/22/21 12:36	50
Toluene-d8 (Surr)		99		75 - 120			06/08/21 19:10	06/22/21 12:36	50

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

**Client Sample ID: West Wall**

Date Collected: 06/08/21 19:10

Date Received: 06/10/21 09:45

**Lab Sample ID: 500-200584-3**

Matrix: Solid

Percent Solids: 94.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.4		69	8.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
2-Methylnaphthalene	<6.3		69	6.3	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Acenaphthene	<6.2		34	6.2	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Acenaphthylene	<4.5		34	4.5	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Anthracene	<5.7		34	5.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
<b>Benzo[a]anthracene</b>	<b>7.0 J</b>		34	4.6	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
<b>Benzo[a]pyrene</b>	<b>7.3 J</b>		34	6.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Benzo[b]fluoranthene	<7.4		34	7.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Benzo[g,h,i]perylene	<11		34	11	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Benzo[k]fluoranthene	<10		34	10	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Chrysene	<9.4		34	9.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Dibenz(a,h)anthracene	<6.6		34	6.6	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
<b>Fluoranthene</b>	<b>8.0 J</b>		34	6.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Fluorene	<4.8		34	4.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Indeno[1,2,3-cd]pyrene	<8.9		34	8.9	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Naphthalene	<5.3		34	5.3	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
Phenanthrene	<4.8		34	4.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1
<b>Pyrene</b>	<b>8.4 J</b>		34	6.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 12:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	97		43 - 145	06/19/21 05:42	06/21/21 12:36	1
Nitrobenzene-d5 (Surr)	90		37 - 147	06/19/21 05:42	06/21/21 12:36	1
Terphenyl-d14 (Surr)	100		42 - 157	06/19/21 05:42	06/21/21 12:36	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: East Wall

Date Collected: 06/08/21 19:15

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-4

Matrix: Solid

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<22		47	22	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	5
1,1,1-Trichloroethane	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	6
1,1,2,2-Tetrachloroethane	<19		47	19	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	7
1,1,2-Trichloroethane	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	8
1,1-Dichloroethane	<19		47	19	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	9
1,1-Dichloroethene	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	10
1,1-Dichloropropene	<14		47	14	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	11
<b>1,2,3-Trichlorobenzene</b>	<b>53</b>		47	22	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	12
1,2,3-Trichloropropane	<20		94	20	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	13
<b>1,2,4-Trichlorobenzene</b>	<b>37 J</b>		47	16	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	14
1,2,4-Trimethylbenzene	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	15
1,2-Dibromo-3-Chloropropane	<94		240	94	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	16
1,2-Dibromoethane	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	17
1,2-Dichlorobenzene	<16		47	16	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	18
1,2-Dichloroethane	<19		47	19	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	19
1,2-Dichloropropane	<20		47	20	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	20
1,3,5-Trimethylbenzene	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	21
1,3-Dichlorobenzene	<19		47	19	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	22
1,3-Dichloropropane	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	23
1,4-Dichlorobenzene	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	24
2,2-Dichloropropane	<21		47	21	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	25
2-Chlorotoluene	<15		47	15	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	26
4-Chlorotoluene	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	27
Benzene	<6.9		12	6.9	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	28
Bromobenzene	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	29
Bromochloromethane	<20		47	20	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	30
Bromodichloromethane	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	31
Bromoform	<23		47	23	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	32
Bromomethane	<38		140	38	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	33
Carbon tetrachloride	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	34
Chlorobenzene	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	35
Chloroethane	<24		47	24	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	36
Chloroform	<17		94	17	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	37
Chloromethane	<15		47	15	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	38
cis-1,2-Dichloroethene	<19		47	19	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	39
cis-1,3-Dichloropropene	<20		47	20	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	40
Dibromochloromethane	<23		47	23	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	41
Dibromomethane	<13		47	13	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	42
Dichlorodifluoromethane	<32		140	32	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	43
Ethylbenzene	<8.6		12	8.6	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	44
Hexachlorobutadiene	<21		47	21	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	45
Isopropyl ether	<13		47	13	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	46
Isopropylbenzene	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	47
Methyl tert-butyl ether	<19		47	19	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	48
Methylene Chloride	<77		240	77	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	49
<b>Naphthalene</b>	<b>87</b>		47	16	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	50
n-Butylbenzene	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	51
N-Propylbenzene	<20		47	20	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	52
p-Isopropyltoluene	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03	50	53

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

**Client Sample ID: East Wall**

**Lab Sample ID: 500-200584-4**

**Matrix: Solid**

Date Collected: 06/08/21 19:15

Date Received: 06/10/21 09:45

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<19		47	19	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
Styrene	<18		47	18	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
tert-Butylbenzene	<19		47	19	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
Tetrachloroethene	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
<b>Toluene</b>	<b>24</b>		12	6.9	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
trans-1,2-Dichloroethene	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
trans-1,3-Dichloropropene	<17		47	17	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
Trichloroethene	<7.7		24	7.7	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
Trichlorofluoromethane	<20		47	20	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
Vinyl chloride	<12		47	12	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
Xylenes, Total	<10		24	10	ug/Kg	06/08/21 19:15	06/22/21 13:03		50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	109			75 - 126			06/08/21 19:15	06/22/21 13:03	50
4-Bromofluorobenzene (Surr)	87			72 - 124			06/08/21 19:15	06/22/21 13:03	50
Dibromofluoromethane (Surr)	108			75 - 120			06/08/21 19:15	06/22/21 13:03	50
Toluene-d8 (Surr)	101			75 - 120			06/08/21 19:15	06/22/21 13:03	50

# Client Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

**Client Sample ID: East Wall**

**Lab Sample ID: 500-200584-4**

Date Collected: 06/08/21 19:15

Matrix: Solid

Date Received: 06/10/21 09:45

Percent Solids: 93.1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	25	J	70	8.5	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
2-Methylnaphthalene	34	J	70	6.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Acenaphthene	74		35	6.2	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Acenaphthylene	22	J	35	4.6	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Anthracene	190		35	5.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Benzo[a]anthracene	770		35	4.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Benzo[a]pyrene	660		35	6.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Benzo[b]fluoranthene	1100		35	7.5	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Benzo[g,h,i]perylene	190		35	11	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Benzo[k]fluoranthene	440		35	10	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Chrysene	770		35	9.5	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Dibenz(a,h)anthracene	74		35	6.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Fluoranthene	1400		35	6.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Fluorene	75		35	4.9	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Indeno[1,2,3-cd]pyrene	200		35	9.0	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Naphthalene	120		35	5.3	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Phenanthrene	1000		35	4.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
Pyrene	1200		35	6.9	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:21	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	94			43 - 145			06/19/21 05:42	06/21/21 18:21	1
Nitrobenzene-d5 (Surr)	83			37 - 147			06/19/21 05:42	06/21/21 18:21	1
Terphenyl-d14 (Surr)	95			42 - 157			06/19/21 05:42	06/21/21 18:21	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: North Tank Base

Date Collected: 06/08/21 19:20

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-5

Matrix: Solid

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	5
1,1,1-Trichloroethane	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	6
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	7
1,1,2-Trichloroethane	<18		50	18	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	8
1,1-Dichloroethane	<20		50	20	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	9
1,1-Dichloroethene	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	10
1,1-Dichloropropene	<15		50	15	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	11
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	12
1,2,3-Trichloropropane	<21		100	21	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	13
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	14
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	15
1,2-Dibromo-3-Chloropropane	<99		250	99	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	1
1,2-Dibromoethane	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	2
1,2-Dichlorobenzene	<17		50	17	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	3
1,2-Dichloroethane	<20		50	20	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	4
1,2-Dichloropropene	<21		50	21	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	5
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	6
1,3-Dichlorobenzene	<20		50	20	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	7
1,3-Dichloropropane	<18		50	18	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	8
1,4-Dichlorobenzene	<18		50	18	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	9
2,2-Dichloropropane	<22		50	22	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	10
2-Chlorotoluene	<16		50	16	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	11
4-Chlorotoluene	<17		50	17	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	12
Benzene	<7.3		12	7.3	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	13
Bromobenzene	<18		50	18	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	14
Bromochloromethane	<21		50	21	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	15
Bromodichloromethane	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	1
Bromoform	<24		50	24	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	2
Bromomethane	<40		150	40	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	3
Carbon tetrachloride	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	4
Chlorobenzene	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	5
Chloroethane	<25		50	25	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	6
Chloroform	<18		100	18	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	7
Chloromethane	<16		50	16	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	8
cis-1,2-Dichloroethene	<20		50	20	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	9
cis-1,3-Dichloropropene	<21		50	21	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	10
Dibromochloromethane	<24		50	24	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	11
Dibromomethane	<13		50	13	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	12
Dichlorodifluoromethane	<34		150	34	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	13
Ethylbenzene	<9.1		12	9.1	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	14
Hexachlorobutadiene	<22		50	22	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	15
Isopropyl ether	<14		50	14	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	1
Isopropylbenzene	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	2
Methyl tert-butyl ether	<20		50	20	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	3
Methylene Chloride	<81		250	81	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	4
Naphthalene	<17		50	17	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	5
n-Butylbenzene	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	6
N-Propylbenzene	<21		50	21	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	7
p-Isopropyltoluene	<18		50	18	ug/Kg	06/08/21 19:20	06/22/21 13:30	50	8

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

## **Client Sample ID: North Tank Base**

**Lab Sample ID: 500-200584-5**

**Matrix: Solid**

Date Collected: 06/08/21 19:20

Date Received: 06/10/21 09:45

### **Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
Styrene	<19		50	19	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
tert-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
Tetrachloroethene	<18		50	18	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
Toluene	<7.3		12	7.3	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
trans-1,2-Dichloroethene	<17		50	17	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
Trichloroethene	<8.2		25	8.2	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
Trichlorofluoromethane	<21		50	21	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
Vinyl chloride	<13		50	13	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
Xylenes, Total	<11		25	11	ug/Kg	06/08/21 19:20	06/22/21 13:30		50
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)		110		75 - 126			06/08/21 19:20	06/22/21 13:30	50
4-Bromofluorobenzene (Surr)		89		72 - 124			06/08/21 19:20	06/22/21 13:30	50
Dibromofluoromethane (Surr)		108		75 - 120			06/08/21 19:20	06/22/21 13:30	50
Toluene-d8 (Surr)		98		75 - 120			06/08/21 19:20	06/22/21 13:30	50

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: North Tank Base

Date Collected: 06/08/21 19:20

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-5

Matrix: Solid

Percent Solids: 91.2

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.7		72	8.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
2-Methylnaphthalene	<6.6		72	6.6	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Acenaphthene	69		35	6.4	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Acenaphthylene	8.3 J		35	4.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Anthracene	240		35	6.0	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Benzo[a]anthracene	1500		35	4.8	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Benzo[a]pyrene	850		35	6.9	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Benzo[b]fluoranthene	1900		35	7.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Benzo[g,h,i]perylene	350		35	12	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Benzo[k]fluoranthene	790		35	11	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Chrysene	1600		35	9.7	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Dibenz(a,h)anthracene	130		35	6.9	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Fluoranthene	2300		35	6.6	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Fluorene	79		35	5.0	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Indeno[1,2,3-cd]pyrene	320		35	9.3	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Naphthalene	7.4 J		35	5.5	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Phenanthrene	1800		35	5.0	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
Pyrene	2200		35	7.1	ug/Kg	⌚	06/19/21 05:42	06/21/21 18:42	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)		95		43 - 145			06/19/21 05:42	06/21/21 18:42	1
Nitrobenzene-d5 (Surr)		89		37 - 147			06/19/21 05:42	06/21/21 18:42	1
Terphenyl-d14 (Surr)		101		42 - 157			06/19/21 05:42	06/21/21 18:42	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: North Wall

Date Collected: 06/08/21 19:25

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-6

Matrix: Solid

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,1,2-Trichloroethane	<17		50	17	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,1-Dichloroethane	<20		50	20	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,1-Dichloroethene	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,1-Dichloropropene	<15		50	15	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,2,3-Trichloropropane	<21		99	21	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,2-Dibromo-3-Chloropropane	<99		250	99	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,2-Dibromoethane	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,2-Dichloroethane	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,2-Dichloropropene	<21		50	21	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,3-Dichloropropane	<18		50	18	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
2,2-Dichloropropane	<22		50	22	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
2-Chlorotoluene	<16		50	16	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
4-Chlorotoluene	<17		50	17	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Benzene	<7.2		12	7.2	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Bromobenzene	<18		50	18	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Bromochloromethane	<21		50	21	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Bromodichloromethane	<18		50	18	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Bromoform	<24		50	24	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Bromomethane	<39		150	39	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Carbon tetrachloride	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Chlorobenzene	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Chloroethane	<25		50	25	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Chloroform	<18		99	18	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Chloromethane	<16		50	16	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Dibromochloromethane	<24		50	24	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Dibromomethane	<13		50	13	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Dichlorodifluoromethane	<33		150	33	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Ethylbenzene	<9.1		12	9.1	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Hexachlorobutadiene	<22		50	22	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Isopropyl ether	<14		50	14	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Isopropylbenzene	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Methyl tert-butyl ether	<20		50	20	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Methylene Chloride	<81		250	81	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Naphthalene	<17		50	17	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
n-Butylbenzene	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
N-Propylbenzene	<21		50	21	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
p-Isopropyltoluene	<18		50	18	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

**Client Sample ID: North Wall**

**Lab Sample ID: 500-200584-6**

**Matrix: Solid**

Date Collected: 06/08/21 19:25

Date Received: 06/10/21 09:45

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Styrene	<19		50	19	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
tert-Butylbenzene	<20		50	20	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Tetrachloroethene	<18		50	18	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Toluene	<7.3		12	7.3	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
trans-1,2-Dichloroethene	<17		50	17	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Trichloroethene	<8.1		25	8.1	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Trichlorofluoromethane	<21		50	21	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Vinyl chloride	<13		50	13	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50
Xylenes, Total	<11		25	11	ug/Kg	06/08/21 19:25	06/22/21 13:56	50	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		75 - 126	06/08/21 19:25	06/22/21 13:56	50
4-Bromofluorobenzene (Surr)	90		72 - 124	06/08/21 19:25	06/22/21 13:56	50
Dibromofluoromethane (Surr)	108		75 - 120	06/08/21 19:25	06/22/21 13:56	50
Toluene-d8 (Surr)	98		75 - 120	06/08/21 19:25	06/22/21 13:56	50

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Client Sample ID: North Wall

Date Collected: 06/08/21 19:25

Date Received: 06/10/21 09:45

## Lab Sample ID: 500-200584-6

Matrix: Solid

Percent Solids: 95.1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.5		70	8.5	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
2-Methylnaphthalene	<6.4		70	6.4	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Acenaphthene</b>	<b>12</b>	<b>J</b>	35	6.3	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
Acenaphthylene	<4.6		35	4.6	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
Anthracene	<5.8		35	5.8	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Benzo[a]anthracene</b>	<b>56</b>		35	4.7	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Benzo[a]pyrene</b>	<b>40</b>		35	6.7	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Benzo[b]fluoranthene</b>	<b>150</b>		35	7.5	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Benzo[g,h,i]perylene</b>	<b>55</b>		35	11	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Benzo[k]fluoranthene</b>	<b>48</b>		35	10	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Chrysene</b>	<b>95</b>		35	9.5	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Dibenz(a,h)anthracene</b>	<b>17</b>	<b>J</b>	35	6.7	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Fluoranthene</b>	<b>96</b>		35	6.5	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Fluorene</b>	<b>11</b>	<b>J</b>	35	4.9	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>49</b>		35	9.0	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
Naphthalene	<5.4		35	5.4	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Phenanthrene</b>	<b>40</b>		35	4.8	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Pyrene</b>	<b>66</b>		35	6.9	ug/Kg	⌚	06/18/21 22:27	06/21/21 14:06	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	72			43 - 145			06/18/21 22:27	06/21/21 14:06	1
Nitrobenzene-d5 (Surr)	71			37 - 147			06/18/21 22:27	06/21/21 14:06	1
Terphenyl-d14 (Surr)	79			42 - 157			06/18/21 22:27	06/21/21 14:06	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

**Client Sample ID: MeOH TB**

Date Collected: 06/08/21 00:00

Date Received: 06/10/21 09:45

**Lab Sample ID: 500-200584-7**

Matrix: Solid

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	5
1,1,1-Trichloroethane	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	6
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	7
1,1,2-Trichloroethane	<18		50	18	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	8
1,1-Dichloroethane	<21		50	21	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	9
1,1-Dichloroethene	<20		50	20	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	10
1,1-Dichloropropene	<15		50	15	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	11
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	12
1,2,3-Trichloropropane	<21		100	21	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	13
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	14
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	15
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	1
1,2-Dibromoethane	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	2
1,2-Dichlorobenzene	<17		50	17	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	3
1,2-Dichloroethane	<20		50	20	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	4
1,2-Dichloropropene	<21		50	21	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	5
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	6
1,3-Dichlorobenzene	<20		50	20	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	7
1,3-Dichloropropane	<18		50	18	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	8
1,4-Dichlorobenzene	<18		50	18	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	9
2,2-Dichloropropane	<22		50	22	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	10
2-Chlorotoluene	<16		50	16	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	11
4-Chlorotoluene	<18		50	18	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	12
Benzene	<7.3		13	7.3	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	13
Bromobenzene	<18		50	18	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	14
Bromochloromethane	<21		50	21	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	15
Bromodichloromethane	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	1
Bromoform	<24		50	24	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	2
Bromomethane	<40		150	40	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	3
Carbon tetrachloride	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	4
Chlorobenzene	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	5
Chloroethane	<25		50	25	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	6
Chloroform	<19		100	19	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	7
Chloromethane	<16		50	16	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	8
cis-1,2-Dichloroethene	<20		50	20	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	9
cis-1,3-Dichloropropene	<21		50	21	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	10
Dibromochloromethane	<24		50	24	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	11
Dibromomethane	<14		50	14	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	12
Dichlorodifluoromethane	<34		150	34	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	13
Ethylbenzene	<9.2		13	9.2	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	14
Hexachlorobutadiene	<22		50	22	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	15
Isopropyl ether	<14		50	14	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	1
Isopropylbenzene	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	2
Methyl tert-butyl ether	<20		50	20	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	3
Methylene Chloride	<82		250	82	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	4
Naphthalene	<17		50	17	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	5
n-Butylbenzene	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	6
N-Propylbenzene	<21		50	21	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	7
p-Isopropyltoluene	<18		50	18	ug/Kg	06/08/21 00:00	06/22/21 11:16	50	8

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# Client Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

**Client Sample ID: MeOH TB**

**Lab Sample ID: 500-200584-7**

**Matrix: Solid**

Date Collected: 06/08/21 00:00

Date Received: 06/10/21 09:45

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<20		50	20	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
Styrene	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
tert-Butylbenzene	<20		50	20	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
Tetrachloroethene	<19		50	19	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
Toluene	<7.4		13	7.4	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
Trichloroethene	<8.2		25	8.2	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
Trichlorofluoromethane	<21		50	21	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
Vinyl chloride	<13		50	13	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
Xylenes, Total	<11		25	11	ug/Kg	06/08/21 00:00	06/22/21 11:16		50
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)		109		75 - 126			06/08/21 00:00	06/22/21 11:16	50
4-Bromofluorobenzene (Surr)		89		72 - 124			06/08/21 00:00	06/22/21 11:16	50
Dibromofluoromethane (Surr)		106		75 - 120			06/08/21 00:00	06/22/21 11:16	50
Toluene-d8 (Surr)		98		75 - 120			06/08/21 00:00	06/22/21 11:16	50

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# Definitions/Glossary

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## GC/MS VOA

### Prep Batch: 603507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200584-1	South Wall	Total/NA	Solid	5035	
500-200584-2	South Tank Base	Total/NA	Solid	5035	
500-200584-3	West Wall	Total/NA	Solid	5035	
500-200584-4	East Wall	Total/NA	Solid	5035	
500-200584-5	North Tank Base	Total/NA	Solid	5035	
500-200584-6	North Wall	Total/NA	Solid	5035	
500-200584-7	MeOH TB	Total/NA	Solid	5035	
LB3 500-603507/8-A	Method Blank	Total/NA	Solid	5035	
LCS 500-603507/9-A	Lab Control Sample	Total/NA	Solid	5035	

### Analysis Batch: 605390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200584-1	South Wall	Total/NA	Solid	8260B	603507
500-200584-2	South Tank Base	Total/NA	Solid	8260B	603507
500-200584-3	West Wall	Total/NA	Solid	8260B	603507
500-200584-4	East Wall	Total/NA	Solid	8260B	603507
500-200584-5	North Tank Base	Total/NA	Solid	8260B	603507
500-200584-6	North Wall	Total/NA	Solid	8260B	603507
500-200584-7	MeOH TB	Total/NA	Solid	8260B	603507
LB3 500-603507/8-A	Method Blank	Total/NA	Solid	8260B	603507
MB 500-605390/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-603507/9-A	Lab Control Sample	Total/NA	Solid	8260B	603507
LCS 500-605390/4	Lab Control Sample	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 605025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200584-6	North Wall	Total/NA	Solid	3541	
MB 500-605025/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605025/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Prep Batch: 605041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200584-1	South Wall	Total/NA	Solid	3541	
500-200584-2	South Tank Base	Total/NA	Solid	3541	
500-200584-3	West Wall	Total/NA	Solid	3541	
500-200584-4	East Wall	Total/NA	Solid	3541	
500-200584-5	North Tank Base	Total/NA	Solid	3541	
MB 500-605041/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605041/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 605182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200584-1	South Wall	Total/NA	Solid	8270D	605041
500-200584-2	South Tank Base	Total/NA	Solid	8270D	605041
500-200584-3	West Wall	Total/NA	Solid	8270D	605041
500-200584-4	East Wall	Total/NA	Solid	8270D	605041
500-200584-5	North Tank Base	Total/NA	Solid	8270D	605041
MB 500-605041/1-A	Method Blank	Total/NA	Solid	8270D	605041
LCS 500-605041/2-A	Lab Control Sample	Total/NA	Solid	8270D	605041

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# QC Association Summary

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## GC/MS Semi VOA

### Analysis Batch: 605196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200584-6	North Wall	Total/NA	Solid	8270D	605025
MB 500-605025/1-A	Method Blank	Total/NA	Solid	8270D	605025
LCS 500-605025/2-A	Lab Control Sample	Total/NA	Solid	8270D	605025

## General Chemistry

### Analysis Batch: 604910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200584-1	South Wall	Total/NA	Solid	Moisture	8
500-200584-2	South Tank Base	Total/NA	Solid	Moisture	9
500-200584-3	West Wall	Total/NA	Solid	Moisture	10
500-200584-4	East Wall	Total/NA	Solid	Moisture	11
500-200584-5	North Tank Base	Total/NA	Solid	Moisture	12
500-200584-6	North Wall	Total/NA	Solid	Moisture	13
500-200584-1 DU	South Wall	Total/NA	Solid	Moisture	14

# Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-200584-1	South Wall	107	87	107	100
500-200584-2	South Tank Base	108	89	104	98
500-200584-3	West Wall	107	91	103	99
500-200584-4	East Wall	109	87	108	101
500-200584-5	North Tank Base	110	89	108	98
500-200584-6	North Wall	110	90	108	98
500-200584-7	MeOH TB	109	89	106	98
LB3 500-603507/8-A	Method Blank	108	89	104	97
LCS 500-603507/9-A	Lab Control Sample	104	87	101	103
LCS 500-605390/4	Lab Control Sample	100	87	100	103
MB 500-605390/6	Method Blank	109	87	108	99

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (43-145)	NBZ (37-147)	TPHL (42-157)
500-200584-1	South Wall	95	87	102
500-200584-2	South Tank Base	93	84	98
500-200584-3	West Wall	97	90	100
500-200584-4	East Wall	94	83	95
500-200584-5	North Tank Base	95	89	101
500-200584-6	North Wall	72	71	79
LCS 500-605025/2-A	Lab Control Sample	84	86	89
LCS 500-605041/2-A	Lab Control Sample	98	94	100
MB 500-605025/1-A	Method Blank	84	83	121
MB 500-605041/1-A	Method Blank	97	92	100

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: LB3 500-603507/8-A**

**Matrix: Solid**

**Analysis Batch: 605390**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 603507**

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,1-Dichloroethane	<21		50	21	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,1-Dichloroethene	<20		50	20	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,1-Dichloropropene	<15		50	15	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,2,3-Trichloropropane	<21		100	21	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,2-Dibromoethane	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,2-Dichloroethane	<20		50	20	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,2-Dichloropropane	<21		50	21	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,3-Dichloropropane	<18		50	18	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
2,2-Dichloropropane	<22		50	22	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
2-Chlorotoluene	<16		50	16	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
4-Chlorotoluene	<18		50	18	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Benzene	<7.3		13	7.3	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Bromobenzene	<18		50	18	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Bromochloromethane	<21		50	21	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Bromodichloromethane	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Bromoform	<24		50	24	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Bromomethane	<40		150	40	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Carbon tetrachloride	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Chlorobenzene	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Chloroethane	<25		50	25	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Chloroform	<19		100	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Chloromethane	<16		50	16	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Dibromochloromethane	<24		50	24	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Dibromomethane	<14		50	14	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Dichlorodifluoromethane	<34		150	34	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Ethylbenzene	<9.2		13	9.2	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Hexachlorobutadiene	<22		50	22	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Isopropyl ether	<14		50	14	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Isopropylbenzene	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Methyl tert-butyl ether	<20		50	20	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Methylene Chloride	<82		250	82	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
Naphthalene	<17		50	17	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
n-Butylbenzene	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50
N-Propylbenzene	<21		50	21	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	50

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LB3 500-603507/8-A**

**Matrix: Solid**

**Analysis Batch: 605390**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 603507**

Analyte	LB3		RL	MDL	Unit	D	Prepared		Dil Fac
	Result	Qualifier					Prepared	Analyzed	
p-Isopropyltoluene	<18		50	18	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
sec-Butylbenzene	<20		50	20	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
Styrene	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
tert-Butylbenzene	<20		50	20	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
Tetrachloroethene	<19		50	19	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
Toluene	<7.4		13	7.4	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
trans-1,2-Dichloroethene	<18		50	18	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
trans-1,3-Dichloropropene	<18		50	18	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
Trichloroethene	<8.2		25	8.2	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
Trichlorofluoromethane	<21		50	21	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
Vinyl chloride	<13		50	13	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	
Xylenes, Total	<11		25	11	ug/Kg	06/11/21 01:00	06/22/21 10:50	50	

**LB3**

**LB3**

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
			Limits	Limits			
1,2-Dichloroethane-d4 (Surr)	108		75 - 126		06/11/21 01:00	06/22/21 10:50	50
4-Bromofluorobenzene (Surr)	89		72 - 124		06/11/21 01:00	06/22/21 10:50	50
Dibromofluoromethane (Surr)	104		75 - 120		06/11/21 01:00	06/22/21 10:50	50
Toluene-d8 (Surr)	97		75 - 120		06/11/21 01:00	06/22/21 10:50	50

**Lab Sample ID: LCS 500-603507/9-A**

**Matrix: Solid**

**Analysis Batch: 605390**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 603507**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier					
1,1,1,2-Tetrachloroethane	2500	2650		ug/Kg	106	70 - 125		
1,1,1-Trichloroethane	2500	2420		ug/Kg	97	70 - 125		
1,1,2,2-Tetrachloroethane	2500	2300		ug/Kg	92	62 - 140		
1,1,2-Trichloroethane	2500	2560		ug/Kg	102	71 - 130		
1,1-Dichloroethane	2500	2370		ug/Kg	95	70 - 125		
1,1-Dichloroethene	2500	2250		ug/Kg	90	67 - 122		
1,1-Dichloropropene	2500	2310		ug/Kg	92	70 - 121		
1,2,3-Trichlorobenzene	2500	2690		ug/Kg	108	51 - 145		
1,2,3-Trichloropropane	2500	2380		ug/Kg	95	50 - 133		
1,2,4-Trichlorobenzene	2500	2480		ug/Kg	99	57 - 137		
1,2,4-Trimethylbenzene	2500	2300		ug/Kg	92	70 - 123		
1,2-Dibromo-3-Chloropropane	2500	2380		ug/Kg	95	56 - 123		
1,2-Dibromoethane	2500	2420		ug/Kg	97	70 - 125		
1,2-Dichlorobenzene	2500	2490		ug/Kg	100	70 - 125		
1,2-Dichloroethane	2500	2480		ug/Kg	99	68 - 127		
1,2-Dichloropropane	2500	2280		ug/Kg	91	67 - 130		
1,3,5-Trimethylbenzene	2500	2320		ug/Kg	93	70 - 123		
1,3-Dichlorobenzene	2500	2400		ug/Kg	96	70 - 125		
1,3-Dichloropropane	2500	2460		ug/Kg	99	62 - 136		
1,4-Dichlorobenzene	2500	2380		ug/Kg	95	70 - 120		
2,2-Dichloropropane	2500	2290		ug/Kg	92	58 - 139		
2-Chlorotoluene	2500	2280		ug/Kg	91	70 - 125		
4-Chlorotoluene	2500	2290		ug/Kg	91	68 - 124		
Benzene	2500	2440		ug/Kg	98	70 - 120		

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# QC Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-603507/9-A**

**Matrix: Solid**

**Analysis Batch: 605390**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 603507**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Bromobenzene	2500	2410		ug/Kg	96	70 - 122		
Bromochloromethane	2500	2470		ug/Kg	99	65 - 122		
Bromodichloromethane	2500	2320		ug/Kg	93	69 - 120		
Bromoform	2500	2710		ug/Kg	108	56 - 132		
Bromomethane	2500	1990		ug/Kg	79	40 - 152		
Carbon tetrachloride	2500	2350		ug/Kg	94	59 - 133		
Chlorobenzene	2500	2480		ug/Kg	99	70 - 120		
Chloroethane	2500	2270		ug/Kg	91	48 - 136		
Chloroform	2500	2440		ug/Kg	97	70 - 120		
Chloromethane	2500	2120		ug/Kg	85	56 - 152		
cis-1,2-Dichloroethene	2500	2330		ug/Kg	93	70 - 125		
cis-1,3-Dichloropropene	2500	2340		ug/Kg	93	64 - 127		
Dibromochloromethane	2500	2460		ug/Kg	98	68 - 125		
Dibromomethane	2500	2340		ug/Kg	94	70 - 120		
Dichlorodifluoromethane	2500	1790		ug/Kg	72	40 - 159		
Ethylbenzene	2500	2390		ug/Kg	95	70 - 123		
Hexachlorobutadiene	2500	3130		ug/Kg	125	51 - 150		
Isopropylbenzene	2500	2220		ug/Kg	89	70 - 126		
Methyl tert-butyl ether	2500	2260		ug/Kg	90	55 - 123		
Methylene Chloride	2500	2580		ug/Kg	103	69 - 125		
Naphthalene	2500	2260		ug/Kg	90	53 - 144		
n-Butylbenzene	2500	2260		ug/Kg	90	68 - 125		
N-Propylbenzene	2500	2260		ug/Kg	90	69 - 127		
p-Isopropyltoluene	2500	2300		ug/Kg	92	70 - 125		
sec-Butylbenzene	2500	2280		ug/Kg	91	70 - 123		
Styrene	2500	2480		ug/Kg	99	70 - 120		
tert-Butylbenzene	2500	2260		ug/Kg	90	70 - 121		
Tetrachloroethene	2500	2800		ug/Kg	112	70 - 128		
Toluene	2500	2540		ug/Kg	101	70 - 125		
trans-1,2-Dichloroethene	2500	2430		ug/Kg	97	70 - 125		
trans-1,3-Dichloropropene	2500	2240		ug/Kg	89	62 - 128		
Trichloroethene	2500	2400		ug/Kg	96	70 - 125		
Trichlorofluoromethane	2500	2410		ug/Kg	96	55 - 128		
Vinyl chloride	2500	2220		ug/Kg	89	64 - 126		
Xylenes, Total	5000	4730		ug/Kg	95	70 - 125		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		75 - 126
4-Bromofluorobenzene (Surr)	87		72 - 124
Dibromofluoromethane (Surr)	101		75 - 120
Toluene-d8 (Surr)	103		75 - 120

**Lab Sample ID: MB 500-605390/6**

**Matrix: Solid**

**Analysis Batch: 605390**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			06/22/21 10:23	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-605390/6**

**Matrix: Solid**

**Analysis Batch: 605390**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			06/22/21 10:23	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			06/22/21 10:23	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			06/22/21 10:23	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			06/22/21 10:23	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			06/22/21 10:23	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			06/22/21 10:23	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			06/22/21 10:23	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/Kg			06/22/21 10:23	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			06/22/21 10:23	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			06/22/21 10:23	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			06/22/21 10:23	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			06/22/21 10:23	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			06/22/21 10:23	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			06/22/21 10:23	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			06/22/21 10:23	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			06/22/21 10:23	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			06/22/21 10:23	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			06/22/21 10:23	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			06/22/21 10:23	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			06/22/21 10:23	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			06/22/21 10:23	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			06/22/21 10:23	1
Benzene	<0.15		0.25	0.15	ug/Kg			06/22/21 10:23	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			06/22/21 10:23	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			06/22/21 10:23	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			06/22/21 10:23	1
Bromoform	<0.48		1.0	0.48	ug/Kg			06/22/21 10:23	1
Bromomethane	<0.80		3.0	0.80	ug/Kg			06/22/21 10:23	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			06/22/21 10:23	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			06/22/21 10:23	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			06/22/21 10:23	1
Chloroform	<0.37		2.0	0.37	ug/Kg			06/22/21 10:23	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			06/22/21 10:23	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			06/22/21 10:23	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			06/22/21 10:23	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			06/22/21 10:23	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			06/22/21 10:23	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/Kg			06/22/21 10:23	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			06/22/21 10:23	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			06/22/21 10:23	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			06/22/21 10:23	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			06/22/21 10:23	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			06/22/21 10:23	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			06/22/21 10:23	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			06/22/21 10:23	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			06/22/21 10:23	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			06/22/21 10:23	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			06/22/21 10:23	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			06/22/21 10:23	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-605390/6**

**Matrix: Solid**

**Analysis Batch: 605390**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Styrene	<0.39		1.0	0.39	ug/Kg			06/22/21 10:23	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			06/22/21 10:23	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			06/22/21 10:23	1
Toluene	<0.15		0.25	0.15	ug/Kg			06/22/21 10:23	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			06/22/21 10:23	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			06/22/21 10:23	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			06/22/21 10:23	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			06/22/21 10:23	1
Vinyl chloride	<0.26		1.0	0.26	ug/Kg			06/22/21 10:23	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			06/22/21 10:23	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	109		75 - 126		06/22/21 10:23	1
4-Bromofluorobenzene (Surr)	87		72 - 124		06/22/21 10:23	1
Dibromofluoromethane (Surr)	108		75 - 120		06/22/21 10:23	1
Toluene-d8 (Surr)	99		75 - 120		06/22/21 10:23	1

**Lab Sample ID: LCS 500-605390/4**

**Matrix: Solid**

**Analysis Batch: 605390**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
1,1,1,2-Tetrachloroethane	50.0	56.8		ug/Kg		114	70 - 125	
1,1,1-Trichloroethane	50.0	54.0		ug/Kg		108	70 - 125	
1,1,2,2-Tetrachloroethane	50.0	47.8		ug/Kg		96	62 - 140	
1,1,2-Trichloroethane	50.0	52.3		ug/Kg		105	71 - 130	
1,1-Dichloroethane	50.0	51.7		ug/Kg		103	70 - 125	
1,1-Dichloroethene	50.0	55.7		ug/Kg		111	67 - 122	
1,1-Dichloropropene	50.0	51.4		ug/Kg		103	70 - 121	
1,2,3-Trichlorobenzene	50.0	58.2		ug/Kg		116	51 - 145	
1,2,3-Trichloropropane	50.0	49.3		ug/Kg		99	50 - 133	
1,2,4-Trichlorobenzene	50.0	55.3		ug/Kg		111	57 - 137	
1,2,4-Trimethylbenzene	50.0	49.8		ug/Kg		100	70 - 123	
1,2-Dibromo-3-Chloropropane	50.0	52.6		ug/Kg		105	56 - 123	
1,2-Dibromoethane	50.0	50.8		ug/Kg		102	70 - 125	
1,2-Dichlorobenzene	50.0	53.3		ug/Kg		107	70 - 125	
1,2-Dichloroethane	50.0	50.6		ug/Kg		101	68 - 127	
1,2-Dichloropropane	50.0	49.0		ug/Kg		98	67 - 130	
1,3,5-Trimethylbenzene	50.0	50.7		ug/Kg		101	70 - 123	
1,3-Dichlorobenzene	50.0	51.6		ug/Kg		103	70 - 125	
1,3-Dichloropropane	50.0	51.6		ug/Kg		103	62 - 136	
1,4-Dichlorobenzene	50.0	51.2		ug/Kg		102	70 - 120	
2,2-Dichloropropane	50.0	53.3		ug/Kg		107	58 - 139	
2-Chlorotoluene	50.0	49.7		ug/Kg		99	70 - 125	
4-Chlorotoluene	50.0	49.6		ug/Kg		99	68 - 124	
Benzene	50.0	52.0		ug/Kg		104	70 - 120	
Bromobenzene	50.0	51.5		ug/Kg		103	70 - 122	
Bromochloromethane	50.0	51.6		ug/Kg		103	65 - 122	

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-605390/4**

**Matrix: Solid**

**Analysis Batch: 605390**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	50.0	48.2		ug/Kg	96	69 - 120	
Bromoform	50.0	57.2		ug/Kg	114	56 - 132	
Bromomethane	50.0	42.9		ug/Kg	86	40 - 152	
Carbon tetrachloride	50.0	53.0		ug/Kg	106	59 - 133	
Chlorobenzene	50.0	52.8		ug/Kg	106	70 - 120	
Chloroethane	50.0	49.1		ug/Kg	98	48 - 136	
Chloroform	50.0	51.1		ug/Kg	102	70 - 120	
Chloromethane	50.0	52.7		ug/Kg	105	56 - 152	
cis-1,2-Dichloroethene	50.0	50.9		ug/Kg	102	70 - 125	
cis-1,3-Dichloropropene	50.0	49.8		ug/Kg	100	64 - 127	
Dibromochloromethane	50.0	52.0		ug/Kg	104	68 - 125	
Dibromomethane	50.0	48.4		ug/Kg	97	70 - 120	
Dichlorodifluoromethane	50.0	54.0		ug/Kg	108	40 - 159	
Ethylbenzene	50.0	52.2		ug/Kg	104	70 - 123	
Hexachlorobutadiene	50.0	70.3		ug/Kg	141	51 - 150	
Isopropylbenzene	50.0	49.7		ug/Kg	99	70 - 126	
Methyl tert-butyl ether	50.0	48.6		ug/Kg	97	55 - 123	
Methylene Chloride	50.0	53.6		ug/Kg	107	69 - 125	
Naphthalene	50.0	49.0		ug/Kg	98	53 - 144	
n-Butylbenzene	50.0	51.3		ug/Kg	103	68 - 125	
N-Propylbenzene	50.0	50.6		ug/Kg	101	69 - 127	
p-Isopropyltoluene	50.0	51.7		ug/Kg	103	70 - 125	
sec-Butylbenzene	50.0	50.9		ug/Kg	102	70 - 123	
Styrene	50.0	52.8		ug/Kg	106	70 - 120	
tert-Butylbenzene	50.0	49.4		ug/Kg	99	70 - 121	
Tetrachloroethene	50.0	62.2		ug/Kg	124	70 - 128	
Toluene	50.0	53.5		ug/Kg	107	70 - 125	
trans-1,2-Dichloroethene	50.0	54.7		ug/Kg	109	70 - 125	
trans-1,3-Dichloropropene	50.0	47.3		ug/Kg	95	62 - 128	
Trichloroethene	50.0	51.7		ug/Kg	103	70 - 125	
Trichlorofluoromethane	50.0	53.4		ug/Kg	107	55 - 128	
Vinyl chloride	50.0	54.3		ug/Kg	109	64 - 126	
Xylenes, Total	100	102		ug/Kg	102	70 - 125	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		75 - 126
4-Bromofluorobenzene (Surr)	87		72 - 124
Dibromofluoromethane (Surr)	100		75 - 120
Toluene-d8 (Surr)	103		75 - 120

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-605025/1-A**

**Matrix: Solid**

**Analysis Batch: 605196**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 605025**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.1		67	8.1	ug/Kg	06/18/21 22:27	06/21/21 11:19		1
2-Methylnaphthalene	<6.1		67	6.1	ug/Kg	06/18/21 22:27	06/21/21 11:19		1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-605025/1-A**

**Matrix: Solid**

**Analysis Batch: 605196**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 605025**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed	Dil Fac
Acenaphthene	<6.0		33		6.0	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Acenaphthylene	<4.4		33		4.4	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Anthracene	<5.6		33		5.6	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Benzo[a]anthracene	<4.5		33		4.5	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Benzo[a]pyrene	<6.4		33		6.4	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Benzo[b]fluoranthene	<7.2		33		7.2	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Benzo[g,h,i]perylene	<11		33		11	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Benzo[k]fluoranthene	<9.8		33		9.8	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Chrysene	<9.1		33		9.1	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Dibenz(a,h)anthracene	<6.4		33		6.4	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Fluoranthene	<6.2		33		6.2	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Fluorene	<4.7		33		4.7	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Indeno[1,2,3-cd]pyrene	<8.6		33		8.6	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Naphthalene	<5.1		33		5.1	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Phenanthrene	<4.6		33		4.6	ug/Kg		06/18/21 22:27	06/21/21 11:19		1
Pyrene	<6.6		33		6.6	ug/Kg		06/18/21 22:27	06/21/21 11:19		1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
2-Fluorobiphenyl (Surr)	84		43 - 145			06/18/21 22:27	06/21/21 11:19	1
Nitrobenzene-d5 (Surr)	83		37 - 147			06/18/21 22:27	06/21/21 11:19	1
Terphenyl-d14 (Surr)	121		42 - 157			06/18/21 22:27	06/21/21 11:19	1

**Lab Sample ID: LCS 500-605025/2-A**

**Matrix: Solid**

**Analysis Batch: 605196**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 605025**

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits
	Added	Result	Qualifier						
1-Methylnaphthalene		1330		1110		ug/Kg		83	68 - 111
2-Methylnaphthalene		1330		1120		ug/Kg		84	69 - 112
Acenaphthene		1330		1030		ug/Kg		77	65 - 124
Acenaphthylene		1330		1060		ug/Kg		80	68 - 120
Anthracene		1330		1120		ug/Kg		84	70 - 114
Benzo[a]anthracene		1330		1260		ug/Kg		95	67 - 122
Benzo[a]pyrene		1330		1270		ug/Kg		95	65 - 133
Benzo[b]fluoranthene		1330		1150		ug/Kg		86	69 - 129
Benzo[g,h,i]perylene		1330		1160		ug/Kg		87	72 - 131
Benzo[k]fluoranthene		1330		1220		ug/Kg		91	68 - 127
Chrysene		1330		1200		ug/Kg		90	63 - 120
Dibenz(a,h)anthracene		1330		1120		ug/Kg		84	64 - 131
Fluoranthene		1330		1180		ug/Kg		88	62 - 120
Fluorene		1330		1110		ug/Kg		83	62 - 120
Indeno[1,2,3-cd]pyrene		1330		1100		ug/Kg		82	68 - 130
Naphthalene		1330		1050		ug/Kg		79	63 - 110
Phenanthrene		1330		1120		ug/Kg		84	62 - 120
Pyrene		1330		1120		ug/Kg		84	61 - 128

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits		
	Added	Result					
2-Fluorobiphenyl (Surr)	84		43 - 145				

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-605025/2-A**

**Matrix: Solid**

**Analysis Batch: 605196**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 605025**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	86		37 - 147
Terphenyl-d14 (Surr)	89		42 - 157

**Lab Sample ID: MB 500-605041/1-A**

**Matrix: Solid**

**Analysis Batch: 605182**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 605041**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.1		67	8.1	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
2-Methylnaphthalene	<6.1		67	6.1	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Acenaphthene	<6.0		33	6.0	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Acenaphthylene	<4.4		33	4.4	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Anthracene	<5.6		33	5.6	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Benzo[a]anthracene	<4.5		33	4.5	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Benzo[a]pyrene	<6.4		33	6.4	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Benzo[b]fluoranthene	<7.2		33	7.2	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Benzo[g,h,i]perylene	<11		33	11	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Benzo[k]fluoranthene	<9.8		33	9.8	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Chrysene	<9.1		33	9.1	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Dibenz(a,h)anthracene	<6.4		33	6.4	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Fluoranthene	<6.2		33	6.2	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Fluorene	<4.7		33	4.7	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Indeno[1,2,3-cd]pyrene	<8.6		33	8.6	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Naphthalene	<5.1		33	5.1	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Phenanthrene	<4.6		33	4.6	ug/Kg		06/19/21 05:42	06/21/21 11:31	1
Pyrene	<6.6		33	6.6	ug/Kg		06/19/21 05:42	06/21/21 11:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits
2-Fluorobiphenyl (Surr)	97		43 - 145
Nitrobenzene-d5 (Surr)	92		37 - 147
Terphenyl-d14 (Surr)	100		42 - 157

**Lab Sample ID: LCS 500-605041/2-A**

**Matrix: Solid**

**Analysis Batch: 605182**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 605041**

Analyte	Spike Added	LCS			D	%Rec	Limits
		Result	Qualifier	Unit			
1-Methylnaphthalene	1330	1200		ug/Kg		90	68 - 111
2-Methylnaphthalene	1330	1200		ug/Kg		90	69 - 112
Acenaphthene	1330	1260		ug/Kg		95	65 - 124
Acenaphthylene	1330	1290		ug/Kg		97	68 - 120
Anthracene	1330	1230		ug/Kg		92	70 - 114
Benzo[a]anthracene	1330	1300		ug/Kg		97	67 - 122
Benzo[a]pyrene	1330	1490		ug/Kg		112	65 - 133
Benzo[b]fluoranthene	1330	1350		ug/Kg		101	69 - 129
Benzo[g,h,i]perylene	1330	1220		ug/Kg		91	72 - 131
Benzo[k]fluoranthene	1330	1280		ug/Kg		96	68 - 127
Chrysene	1330	1280		ug/Kg		96	63 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: Stantec Consulting Corp.

Job ID: 500-200584-1

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

## **Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

**Lab Sample ID: LCS 500-605041/2-A**

**Matrix: Solid**

**Analysis Batch: 605182**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 605041**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibenz(a,h)anthracene	1330	1270		ug/Kg	95	64 - 131	
Fluoranthene	1330	1330		ug/Kg	100	62 - 120	
Fluorene	1330	1220		ug/Kg	92	62 - 120	
Indeno[1,2,3-cd]pyrene	1330	1240		ug/Kg	93	68 - 130	
Naphthalene	1330	1180		ug/Kg	88	63 - 110	
Phenanthrene	1330	1230		ug/Kg	92	62 - 120	
Pyrene	1330	1280		ug/Kg	96	61 - 128	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	98		43 - 145
Nitrobenzene-d5 (Surr)	94		37 - 147
Terphenyl-d14 (Surr)	100		42 - 157

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## **Client Sample ID: South Wall**

**Date Collected: 06/08/21 19:00**  
**Date Received: 06/10/21 09:45**

**Lab Sample ID: 500-200584-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			603507	06/08/21 19:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	605390	06/22/21 11:43	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	604910	06/18/21 10:28	LWN	TAL CHI

## **Client Sample ID: South Wall**

**Date Collected: 06/08/21 19:00**  
**Date Received: 06/10/21 09:45**

**Lab Sample ID: 500-200584-1**

**Matrix: Solid**

**Percent Solids: 94.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605041	06/19/21 05:42	DAK	TAL CHI
Total/NA	Analysis	8270D		1	605182	06/21/21 11:53	AJD	TAL CHI

## **Client Sample ID: South Tank Base**

**Date Collected: 06/08/21 19:05**  
**Date Received: 06/10/21 09:45**

**Lab Sample ID: 500-200584-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			603507	06/08/21 19:05	WRE	TAL CHI
Total/NA	Analysis	8260B		50	605390	06/22/21 12:10	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	604910	06/18/21 10:28	LWN	TAL CHI

## **Client Sample ID: South Tank Base**

**Date Collected: 06/08/21 19:05**  
**Date Received: 06/10/21 09:45**

**Lab Sample ID: 500-200584-2**

**Matrix: Solid**

**Percent Solids: 88.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605041	06/19/21 05:42	DAK	TAL CHI
Total/NA	Analysis	8270D		1	605182	06/21/21 12:14	AJD	TAL CHI

## **Client Sample ID: West Wall**

**Date Collected: 06/08/21 19:10**  
**Date Received: 06/10/21 09:45**

**Lab Sample ID: 500-200584-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			603507	06/08/21 19:10	WRE	TAL CHI
Total/NA	Analysis	8260B		50	605390	06/22/21 12:36	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	604910	06/18/21 10:28	LWN	TAL CHI

## **Client Sample ID: West Wall**

**Date Collected: 06/08/21 19:10**  
**Date Received: 06/10/21 09:45**

**Lab Sample ID: 500-200584-3**

**Matrix: Solid**

**Percent Solids: 94.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605041	06/19/21 05:42	DAK	TAL CHI
Total/NA	Analysis	8270D		1	605182	06/21/21 12:36	AJD	TAL CHI

Eurofins TestAmerica, Chicago

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

## **Client Sample ID: East Wall**

Date Collected: 06/08/21 19:15  
Date Received: 06/10/21 09:45

**Lab Sample ID: 500-200584-4**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			603507	06/08/21 19:15	WRE	TAL CHI
Total/NA	Analysis	8260B		50	605390	06/22/21 13:03	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	604910	06/18/21 10:28	LWN	TAL CHI

## **Client Sample ID: East Wall**

Date Collected: 06/08/21 19:15  
Date Received: 06/10/21 09:45

**Lab Sample ID: 500-200584-4**

Matrix: Solid

Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605041	06/19/21 05:42	DAK	TAL CHI
Total/NA	Analysis	8270D		1	605182	06/21/21 18:21	AJD	TAL CHI

## **Client Sample ID: North Tank Base**

Date Collected: 06/08/21 19:20  
Date Received: 06/10/21 09:45

**Lab Sample ID: 500-200584-5**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			603507	06/08/21 19:20	WRE	TAL CHI
Total/NA	Analysis	8260B		50	605390	06/22/21 13:30	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	604910	06/18/21 10:28	LWN	TAL CHI

## **Client Sample ID: North Tank Base**

Date Collected: 06/08/21 19:20  
Date Received: 06/10/21 09:45

**Lab Sample ID: 500-200584-5**

Matrix: Solid

Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605041	06/19/21 05:42	DAK	TAL CHI
Total/NA	Analysis	8270D		1	605182	06/21/21 18:42	AJD	TAL CHI

## **Client Sample ID: North Wall**

Date Collected: 06/08/21 19:25  
Date Received: 06/10/21 09:45

**Lab Sample ID: 500-200584-6**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			603507	06/08/21 19:25	WRE	TAL CHI
Total/NA	Analysis	8260B		50	605390	06/22/21 13:56	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	604910	06/18/21 10:28	LWN	TAL CHI

## **Client Sample ID: North Wall**

Date Collected: 06/08/21 19:25  
Date Received: 06/10/21 09:45

**Lab Sample ID: 500-200584-6**

Matrix: Solid

Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605025	06/18/21 22:27	ACK	TAL CHI
Total/NA	Analysis	8270D		1	605196	06/21/21 14:06	AJD	TAL CHI

Eurofins TestAmerica, Chicago

# Lab Chronicle

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

**Client Sample ID: MeOH TB**

**Lab Sample ID: 500-200584-7**

**Matrix: Solid**

Date Collected: 06/08/21 00:00

Date Received: 06/10/21 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			603507	06/08/21 00:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	605390	06/22/21 11:16	PMF	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.

Project/Site: Frm Mirro Plant 9 UST Remv - 193706270

Job ID: 500-200584-1

### Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-21

1

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Eurofins TestAmerica, Chicago

## Chain of Custody Record

eurofins

1

<b>Client Information</b>		Sampler <i>(202) 219-4710</i>	Lab PM Fredrick Sandie	Carrier Tracking No(s) <i>W1</i>	COC No 500-92032-41022 1				
Client Contact: Harris Byers		Phone <i>(202) 219-4710</i>	E-Mail sandra.frednck@eurofinset.com	State of Origin. <i>WI</i>	Page Page 1 of 1				
Company Stantec Consulting Corp		PWSID <i>500-200584 COC</i>	Analysis Requested						
Address 12075 Corporate Pkwy Suite 200		Due Date Requested <i>10/14</i>			Preservation Codes				
City Mequon		TAT Requested (days)			A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D N:nc Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2SO3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)				
State Zip WI 53092		Compliance Project: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Other:				
Phone: 193706270		PO # 193706270							
Email harris.bryers@stantec.com		WO #							
Project Name Frm Mirro Plant 9 UST Remv		Project # 50006565							
Site SSOW#									
Sample Identification		Sample Date <i>6/8/2021</i>	Sample Time <i>1900</i>	Sample Type (C=Comp, G=grab) <i>G</i>	Matrix (W=water, S=solid, O=waste/oil, BT-Tissue, A=Air) <i>Solid</i>	Field Filtered Sample (Yes or No) <i>N</i>	Preservation (Yes or No) <i>N</i>	Total Number of containers <i>1</i>	Special Instructions/Note
1	SOUTH WALL	<i>6/8/2021</i>	<i>1900</i>	<i>G</i>	<i>Solid</i>	<i>X</i>	<i>X</i>	<i>M</i>	-
2	SOUTH TANK BASE		<i>1905</i>		<i>Solid</i>	<i>X</i>	<i>X</i>	<i>M</i>	
3	WEST WALL		<i>1910</i>		<i>Solid</i>	<i>X</i>	<i>X</i>	<i>M</i>	
4	EAST WALL		<i>1915</i>		<i>Solid</i>	<i>X</i>	<i>X</i>	<i>M</i>	
5	NORTH TANK BASE		<i>1920</i>		<i>Solid</i>	<i>X</i>	<i>X</i>	<i>M</i>	
6	NORTH WALL	<i>↓</i>	<i>1925</i>	<i>↓</i>	<i>Solid</i>	<i>U</i>	<i>X</i>	<i>M</i>	
7	MECH TB				<i>Solid</i>	<i>X</i>		<i>M</i>	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months			
Deliverable Requested I II III IV Other (specify)						Special Instructions/QC Requirements			
Empty Kit Relinquished by		Date		Time		Method of Shipment			
<i>ES Cull</i>		<i>6/9/2021, 1400</i>		<i>STANTEC</i>		<i>Paula Buckley</i>		<i>01/16/21</i>	<i>0945</i>
Relinquished by		Date/Time		Company		Received by		Date/Time	Company
Relinquished by		Date/Time		Company		Received by		Date/Time	Company
Custody Seals Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Outer Temperature(s) °C and Other Remarks <i>3.8</i>					

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 500-200584-1

**Login Number:** 200584

**List Source:** Eurofins TestAmerica, Chicago

**List Number:** 1

**Creator:** Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	